GRUNDIG

CARaudio
Service-Management

Service Manual

SEAT

GP 99 HIGH (G.HK 66-00)
GP 99 HIGH BC (G.HK 67-00)
RADIO HIGH (G.HK 36-00)
RADIO HIGH BC (G.HK 37-00)

(D) Inhaltsverzeichnis

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Zusätzlich erforderliche Unterlagen für den Komplettservice
Additionally required Documents for the Complete Service

Service Manual
Sicherheit
Safety
Mat.-Nr./Part No.
72010 800 0000

Dieses Service Manual ist nur in Datenform verfügbar
This Service Manual is only available as data

Änderungen vorbehalten
Subject to alteration

Made by GRUNDIG in Germany
E-BS36 0799

Bedienhinweise / Operating Hints

Tastenfunktionen / Key - Functions

Key	Radio-Mode (Device 1)			Tape-Mode (Device 2)		CD-Mode (Device 3)				
	Push short	Time out 1 > 2s	Time out 2 > 4 s	Push short	Time out 1 > 2s	Push short	Time out 1 > 2s	Time out 2 > 4 s		
Eject Mech.	Eject Tape			Eject Tape		Eject Tape				
Reverse Mech.				Reverse						
Encoder	ON / OFF turn left: Volume minus turn right: Volume plus			ON / OFF turn left: Volume minus turn right: Volume plus		ON / OFF turn left: Volume minus turn right: Volume plus				
BASS TREB BAL FAD	Encoder turn left: minus Encoder turn right: plus			Encoder turn left: minus Encoder turn right: plus		Encoder turn left: minus Encoder turn right: plus				
O PROG	TIME AUTO Uhr, Tag, Monat, Jahr	PROGRAM		TIME AUTO Uhr, Tag, Monat, Jahr	PROGRAM	TIME AUTO Uhr, Tag, Monat, Jahr	PROGRAM			
LOUD MONO	LOUD	MONO		LOUD		LOUD				
RDS	RDS	LEARN		RDS	LEARN	RDS	LEARN			
FM / AM	FM / AM			FM / AM		FM / AM				
TAPE	TAPE					TAPE				
CD	CD			CD						
>	FM: search AM: search RDS: scan			APF ON / OFF	APF Toggle	Next Track	forward			
<	FM: search AM: search RDS: scan			APF ON / OFF	APF Toggle	Last Track	return			
DX MAN	DX	MANUELL								
DOLBY AS		AS- Function		Dolby	Cr					
1	preset 1	store frequency				CD 1				
2	preset 2	store frequency				CD 2				
3	preset 3	store frequency				CD 3				
4	preset 4	store frequency				CD 4				
5	preset 5	store frequency				CD 5				
6	preset 6	store frequency				CD 6				
PTY	PTY	SEARCH								
TP	TP			TP		TP				

Tastenfunktionen / Key - Functions (Programm - Mode)

	Programm-Mode									
Display	TIME	BEEP	MONO	LEARN	REGION	IGN	ON VOL	TA VOL	T--VOL	SCV
	AUTO / MANUELL	ON / OFF	AUTO / MANUELL	Auto-learn TP ON / OFF	Region RDS ON / OFF	Ignition ON / OFF	Switch ON max. volume	TA-Volume adjustment	Telephone mute active	SCV OFF, LOW, MID, HIGH
Key	Push short	Push short	Push short	Push short	Push short	Push short	Push short	Push short	Push short	Push short
>	next Function AUTO / MAN	next Function ON / OFF	next Function AUTO / MAN	next Function ON / OFF	next Function ON / OFF	next Function ON / OFF	next Function 0...-...35	next Function 05...-...35	next Function 0...-...35	next Function OFF, LOW, MID, HIGH
<	last Function AUTO / MAN	last Function ON / OFF	last Function AUTO / MAN	last Function ON / OFF	last Function ON / OFF	last Function ON / OFF	last Function 0... ...35	last Function 05...-...35	last Function 0... ...35	last Function OFF, LOW, MID, HIGH
Default value	AUTO	ON	AUTO	ON	ON	ON	15	5	5	MID

(D) Abgleichvorschriften

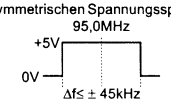
1. Hauptplatte

Meßgeräte: DC-Voltmeter, Meßsender, NF-Voltmeter, Stereocoder, Wobbler, Oszilloskop

Aufruf des ´extended Expert Modus´:
Gerät ausschalten. Stationstaste 2 drücken, gedrückt halten und Gerät einschalten. Stationstaste 2 länger als 10 Sekunden gedrückt halten. TAPE/CD-Taste drücken und ca. 5 Sekunden gedrückt halten bis im Display die Anzeige SE-xx-ME (xx = Softwareversion) erscheint. Taste TP/AS drücken und ca. 5 Sekunden gedrückt halten bis zum zweiten Signalton. Mit den Tasten **<** bzw. **>** den entsprechenden Parametersatz anwählen (Anzeige z.B. 00 1400). Taste TP/AS kurz drücken (zusätzliches E im Display: E 00 1400). Mit den Tasten **<** bzw. **>** den Wert ändern. Taste TP/AS kurz drücken (E erlischt wieder).

Sollte versehentlich ein anderer Parameter geändert werden, können Sie dessen korrekten Wert aus der Parametertabelle auf der Seite 8 entnehmen.

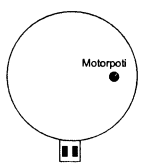
Beenden des ´extended Expert Modus´:
Gerät ausschalten.

Abgleich	Vorbereitung	Abgleichvorgang
1. MW-Oszillator	MW; **DC-Voltmeter** an **FMP705**.	Mit **L606A** bei **531kHz** auf **1,0V ± 50mV** abgleichen. Kontrolle: **7,0V ± 0,5V** bei **1602kHz**.
2. LW-Oszillator	LW; **DC-Voltmeter** an **FMP705**.	Mit **L607AL** bei **153kHz** auf **1,3V ± 50mV** abgleichen. Kontrolle: **5,0V ± 0,5V** bei **279kHz**.
3. AM-ZF	Meßsender an Antenneneingang; **f = 1548kHz**; E´ = 100µV (40dBµV); ohne Modulation. **DC-Voltmeter** an **FMP602**.	Mit **L604A** auf **Maximum** abgleichen.
4. MW-Vorkreis	Meßsender an Antenneneingang; E´ = 100µV (40dBµV); ohne Modulation. **DC-Voltmeter** an **FMP602**.	Wechselweise mit **C608A** bei **1548kHz** und mit **L601A** bei **558kHz** auf **Maximum** abgleichen.
5. LW-Vorkreis	Meßsender an Antenneneingang; **f = 162kHz**; E´ = 100µV (40dBµV); ohne Modulation. **DC-Voltmeter** an **FMP602**.	Mit **L602AL** auf **Maximum** abgleichen.
6. AM-Suchlaufstop	Meßsender an Antenneneingang; **f = 1008kHz**; ohne Modulation. **Extended Expert Modus** aktivieren (s. o.). Signal mit **E´ = 250µV (48dBµV)** anlegen. DX deaktivieren.	Parameterwert 01 solange ändern bis Suchlauf gerade stoppt.
	Signal mit **E´ = 20µV (26dBµV)** anlegen. DX aktivieren.	Parameterwert 00 solange ändern bis Suchlauf gerade stoppt.
7. FM-Oszillator	FM. **DC-Voltmeter** an **FMP705**.	Mit **L06** bei **87,5MHz** auf **1,6V ± 50mV** abgleichen. Kontrolle: **6,5V ± 0,5V** bei **108MHz**.
8. FM-HF- und ZF-Kreise	Meßsender an Antenneneingang; **f = 95,0MHz**; E´ = 100µV (40dBµV); ohne Modulation. **DC-Voltmeter** zwischen **FMP101 (+)** und **FMP103 (-)**.	Wechselweise mit **L03** und **L04** auf **Maximum** abgleichen. Mit **L05** auf **Maximum** abgleichen.
9. ZF-Mittenfrequenz	Meßsender an Antenneneingang; **f = 98,0MHz**; f_{mod} = 1kHz; Hub = 22,5kHz; E´ = 1mV (60dBµV). **NF-Voltmeter** an **FMP101**. **Extended Expert Modus** aktivieren (s. o.). Parametersatz 48 anwählen.	Durch Ändern des Wertes **Minimum** (≤ 10mV) einstellen.
10. Stop-Generator	Wobbler an Antenneneingang; Mittenfrequenz **95,0MHz**; Δf = ± 100kHz; E´ = 100µV (40dBµV); ohne Modulation. **Oszilloskop** an **FMP104**.	Mit **L 101** auf symmetrischen Spannungssprung einstellen. 
11. Feldstärke	Meßsender an Antenneneingang; **f = 95,0MHz**; E´ = 70µV (37dBµV); ohne Modulation. **DC-Voltmeter** zwischen **FMP101 (+)** und **FMP103 (-)**.	Mit **CR26** auf **+300mV ± 10mV** einstellen.

Abgleich	Vorbereitung	Abgleichvorgang
12. Stereo-Übersprechen	Meßsender mit Stereocoder an Antenneneingang; **f = 94,8MHz**; f_{mod} = 1kHz mit 22,5kHz Hub; Pilotton 19kHz mit 7,5kHz Hub; RDS 57kHz mit 1,2kHz Hub; E´ = 1mV (60dBµV). Nur **linken Kanal** modulieren. **NF-Voltmeter** an **Lautsprecher-Ausgang rechter Kanal**. **Extended Expert Modus** aktivieren (s. o.). Parametersatz 53 anwählen.	Durch Ändern des Wertes auf **Minimum** einstellen.
13. FM-Suchlaufstop	Meßsender an Antenneneingang; **f = 95,0MHz**; ohne Modulation. **Extended Expert Modus** aktivieren (s. o.). Signal mit **E´ = 80µV (38dBµV)** anlegen. DX deaktivieren.	Parameterwert 03 solange ändern bis Suchlauf gerade stoppt.
	Signal mit **E´ = 8µV (18dBµV)** anlegen. DX aktivieren.	Parameterwert 02 solange ändern bis Suchlauf gerade stoppt.

2. Cassettenlaufwerk

Meßgeräte: Frequenzzähler, Test-Cassette 3150Hz (z.B. 448A)

Abgleich	Vorbereitung	Abgleichvorgang
Bandgeschwindigkeit	Test-Cassette einlegen und 3150Hz-Teil abspielen. **Frequenzzähler** an **Lautsprecher-Ausgang**.	Mit Motorpoti auf 3150Hz ± 100Hz einstellen. 

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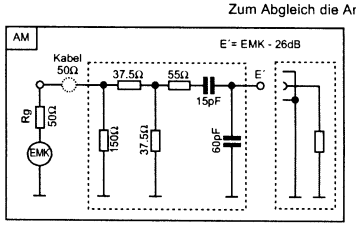
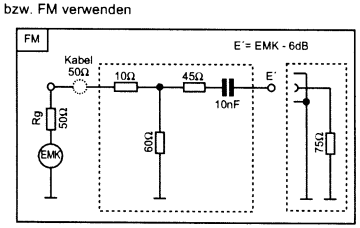
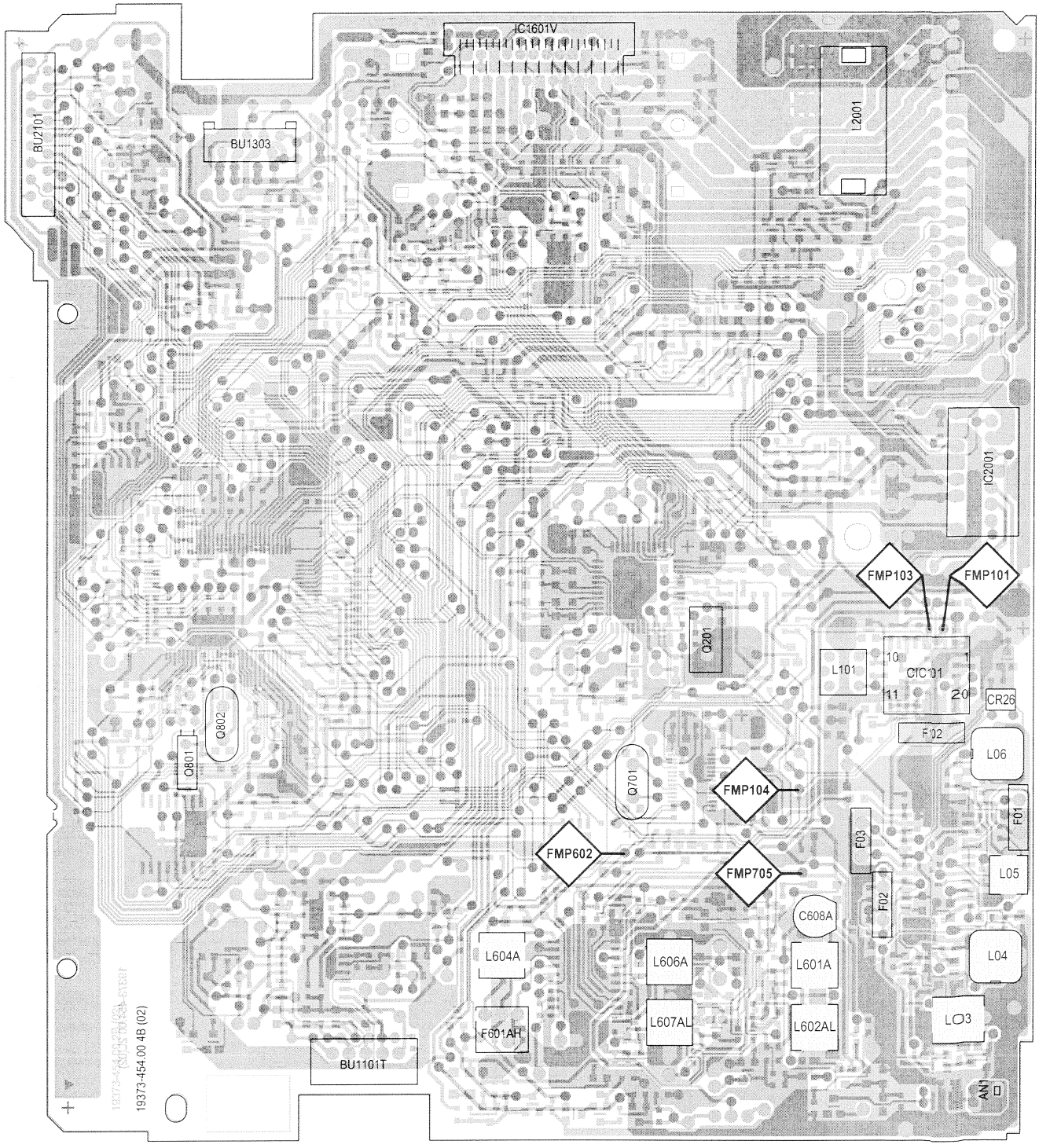
NR = Noise Reduction (Rauschunterdrückung).

Zum Abgleich die Antennennachbildungen für AM bzw. FM verwenden





Abgleichlageplan / Alignment Layout



(GB) Adjustment Procedures

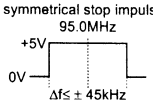
1. Main Board

Test equipment: DC Voltmeter, Test Generator, AF Voltmeter, Stereo Coder, Sweep Generator, Oscilloscope

Calling up the 'extended Expert Mode':
Switch off the set. Press and hold depressed station button 2 and switch on the set. Hold the station button 2 depressed for more than 10 seconds. Press and hold depressed the TAPE/CD button for about 5 seconds until the display shows SE-xx-MC (xx = Version of software). Press button TP/AS for more than 5 seconds until after the second sound. With the buttons **<** resp. **>** select the corresponding parameter set (display shows e.g. 00 1400). Press button TP/AS briefly (additional E in the display: r 00 1400). With the buttons **<** resp. **>** change the value. Press button TP/AS briefly (E goes out).

If you changed an other parameter by mistake you can find its correct value in the parameter table on page 8.

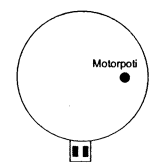
Leaving the 'extended Expert Mode':
Switch off the set.

Adjustment	Preparation	Adjustment Procedure
1. MW Oscillator	MW; Connect a **DC Voltmeter** to **FMP705**.	Align with **L606A** at **531kHz** for **1.0V ± 50mV**. Check: **7.0V ± 0.5V** at **1602kHz**.
2. LW Oscillator	LW; Connect a **DC Voltmeter** to **FMP705**.	Align with **L607AL** at **153kHz** for **1.3V ± 50mV**. Check: **5.0V ± 0.5V** at **279kHz**.
3. AM IF	Connect a Test Generator to aerial input; **f = 1548kHz**; **E'** = 100µV (40dBµV); no modulation. Connect a **DC Voltmeter** to **FMP602**.	Align with **L604A** for **maximum**.
4. MW Bandpass	Connect a Test Generator to aerial input; **E'** = 100µV (40dBµV); no modulation. Connect a **DC Voltmeter** to **FMP602**.	Align alternating with **C608A** at **1548kHz** and with **L601A** at **558kHz** for **maximum**.
5. LW Bandpass	Connect a Test Generator to aerial input; **f = 162kHz**; **E'** = 100µV (40dBµV); no modulation. Connect a **DC Voltmeter** to **FMP602**.	Align with **L602AL** for **maximum**.
6. AM search level stop	Connect a Test Generator to aerial input; **f = 1008kHz**; no modulation; Call up the **extended expert mode** (see above). Apply a signal with **E' = 250µV (48dBµV)**. Set DX to OFF.	Change Parameter value 01 until search just stops.
	Apply a signal with **E' = 20µV (26dBµV)**. Set DX to ON.	Change Parameter value 00 until search just stops.
7. FM Oscillator	FM; Connect a **DC Voltmeter** to **FMP705**.	Align with **L06** at **87.5MHz** for **1.6V ± 50mV**. Check: **6.5V ± 0.5V** at **108MHz**.
8. FM RF and IF	Connect a Test Generator to aerial input; **f = 95.0MHz**; **E'** = 100µV (40dBµV); no modulation. Connect a **DC Voltmeter** between **FMP101 (+)** and **FMP103 (-)**.	Align alternating with **L03** and **L04** for **maximum**. Align with **L05** for **maximum**.
9. IF Center frequency	Connect a Test Generator to aerial input; **f = 98.0MHz**; f_{mod} = 1kHz; Deviation = 22.5kHz; E' = 1mV (60dBµV). Connect an **AF Voltmeter** to **FMP101**. Call up the **extended expert mode** (see above). Select parameter 48.	Set the parameter value for **minimum**.
10. Stop Generator	Connect a sweep generator to aerial input. **Center frequency 95.0MHz**; Δf = ± 100kHz; **E'** = 100µV (40dBµV); no modulation. Connect an **Oscilloscope** to **FMP104**.	Align **L 101** for a symmetrical stop impulse. 
11. Field strength	Connect a Test Generator to aerial input; **f = 95.0MHz**; **E'** = 70µV (37dBµV); no modulation. Connect a **DC Voltmeter** between **FMP101 (+)** and **FMP103 (-)**.	Adjust with **CR26** for **+300mV ± 10mV**.

Adjustment	Preparation	Adjustment Procedure
12. Stereo Crosstalk	Connect a Test Generator with Stereo Coder to aerial input; **f = 95.0MHz**; f_{mod} 1kHz at 22.5kHz deviation; Pilot 19kHz at 7.5kHz deviation; RDS 57kHz at 1.2kHz deviation; E' = 1mV (60dBµV); modulate only the **left channel**. Connect an **AF Voltmeter** to **loudspeaker output right channel**. Call up the **extended expert mode** (see above). Select parameter 53.	Set the parameter value for **minimum**.
13. FM search level stop	Connect a Test Generator to aerial input; Frequency **95.1MHz**; no modulation; Call up the **extended expert mode** (see above). Apply a signal with **E' = 80µV (38dBµV)**. Set DX to OFF.	Change Parameter value 03 until search just stops.
	Apply a signal with **E' = 8µV (18dBµV)**. Set DX to ON.	Change Parameter value 02 until search just stops.

2. Tape Drive

Test equipment: Frequency counter, Test Cassette 3150Hz (e.g. 448A)

Adjustment	Preparation	Adjustment Procedure
Tape Speed	Insert Test Cassette and play 3150Hz part. Connect a **frequency counter** to **loudspeaker outputs**.	With the 'Motorpoti' adjust for 3150Hz ± 100Hz. 

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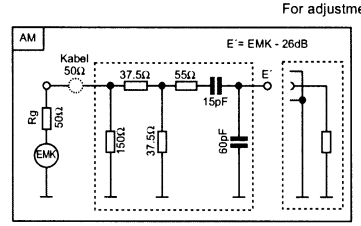
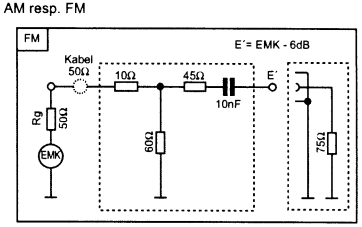
NR = Noise Reduction.

For adjustment use the aerial dummies for AM resp. FM





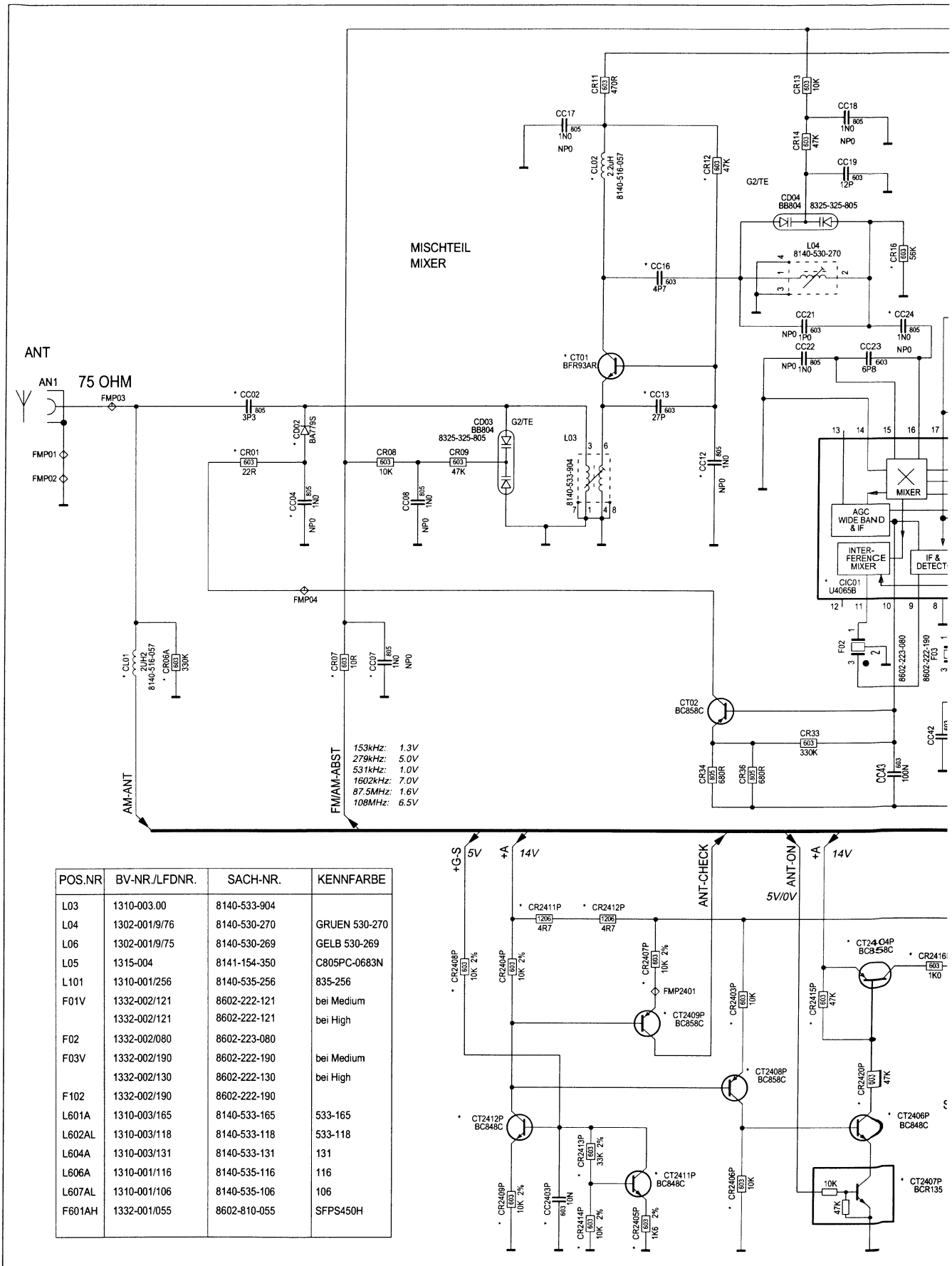
Parametertabelle / Set of Parameters

Parameter	Wert Value	Beschreibung Description
0		AM Schwelle / Search Level DX
1		AM Schwelle / Search Level LOCAL
2		FM Schwelle / Search Level DX
3		FM Schwelle / Search Level LOCAL
4	3840	
5	2920	
6	2580	
7	1800	
8	2600	
9	380	
10	480	
11	3360	
12	2980	
13	2600	
14	2200	
15	2200	
16	2580	
17	3	
18	10	
19	25	
20	60	
21	60	
22	2	
23	10	
24	255	
25	255	
26	20	
27	50	
28	80	
29	2	
30	75	
31	52	
32	0	
33	1	
34	68 4	HIGH HIGH BC

Parameter	Wert Value	Beschreibung Description
35	15	
36	5	
37	126	
38	248	
39	21	
40	231	
41	239	
42	133	
43	112	
44	34	
45	126	
46	133	
47	98	
48		ZF-Mitteneinstellung / IF center
49	6	
50	4	
51	3	
52	7	
53		Übersprechen / Stereo Crosstalk
54	46	
55	0	
56	8	
57	18	
58	15	
59	3	
60	1	
61	62	
62	128	
63	100	
64	20	
65	31	
66	200	
67	175	
68	0	
69	31	
70	254	

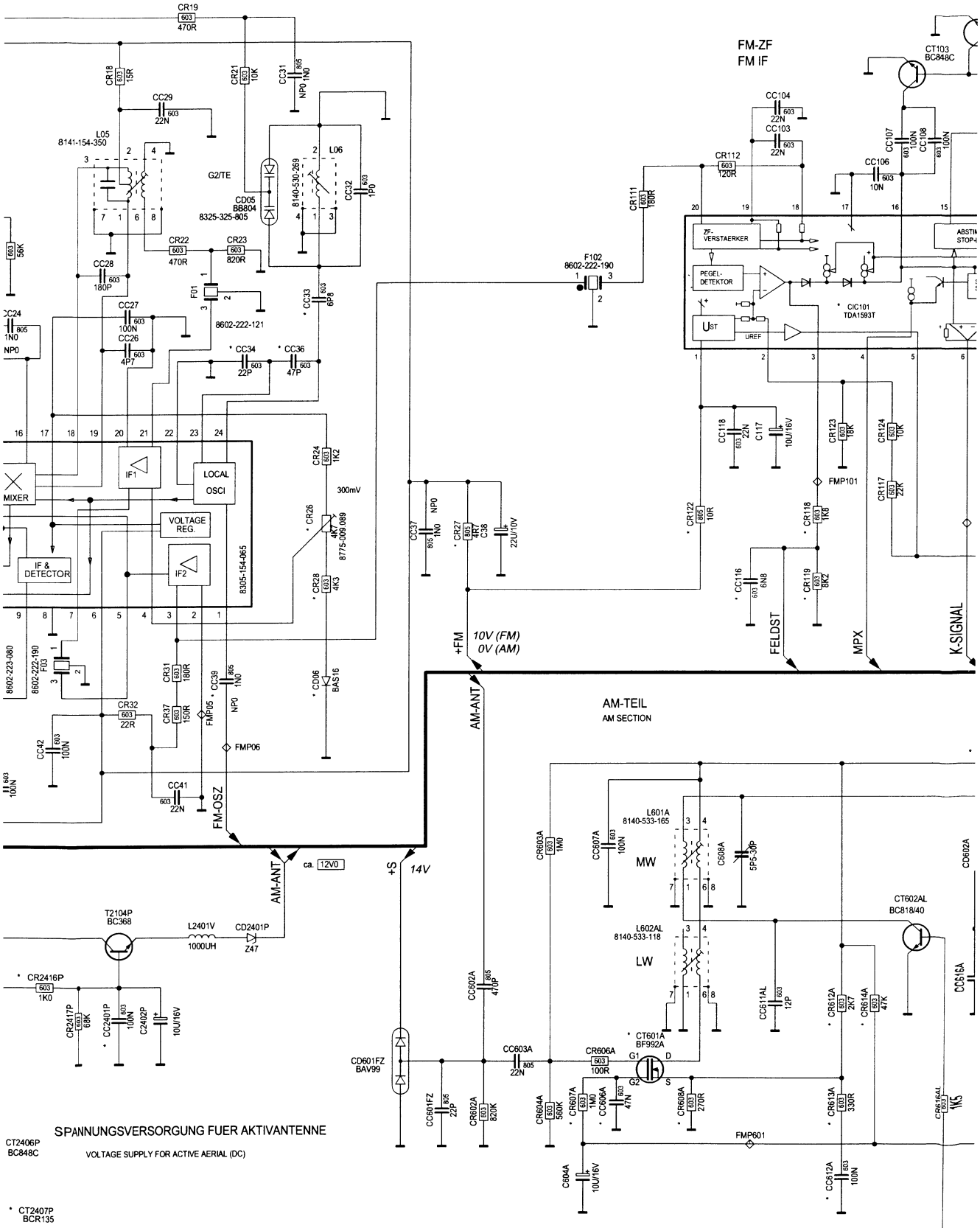
Schaltpläne und Druckplattenabbildungen / Circuit Diagrams and Layout of PCBs

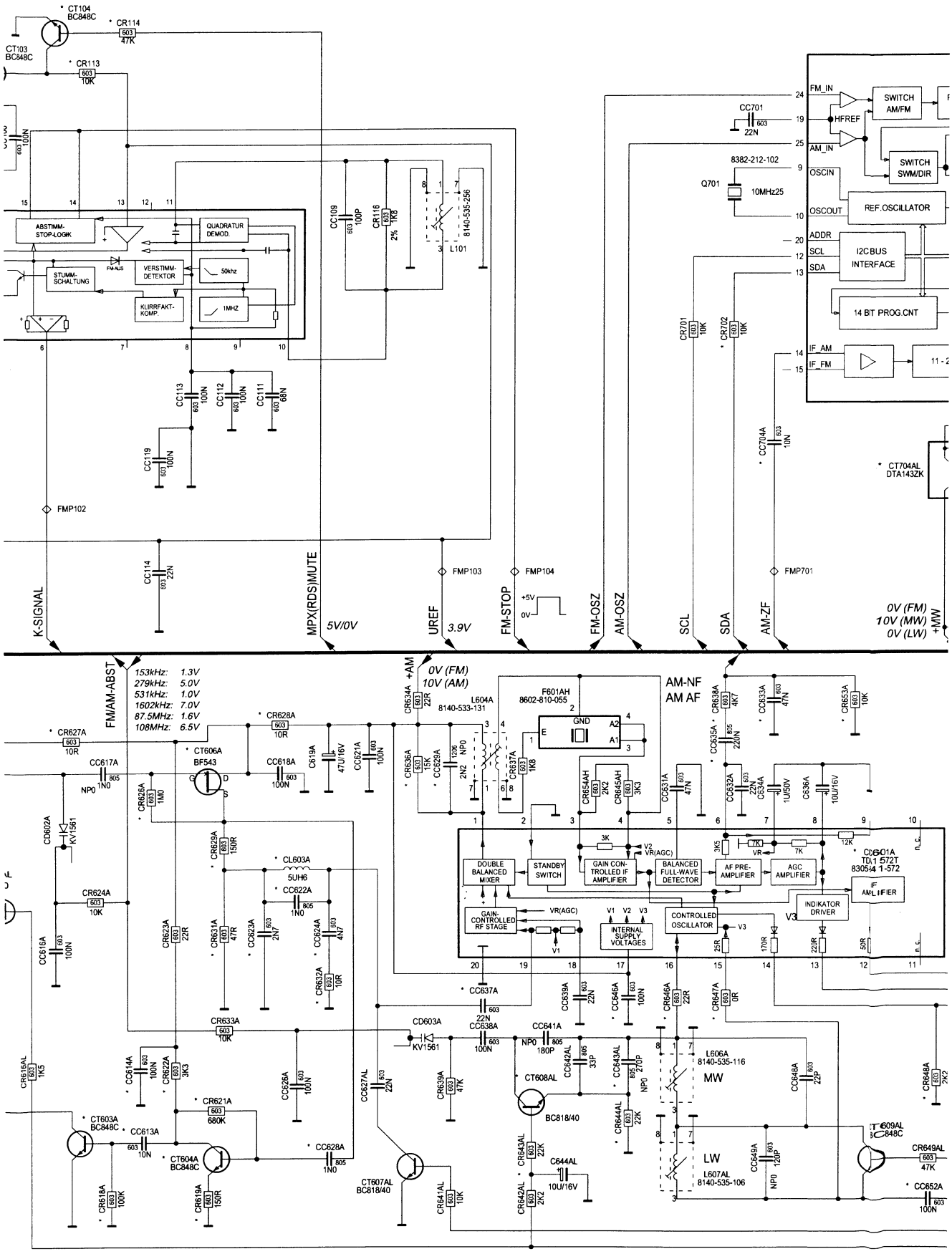
HF-Teil / RF Part

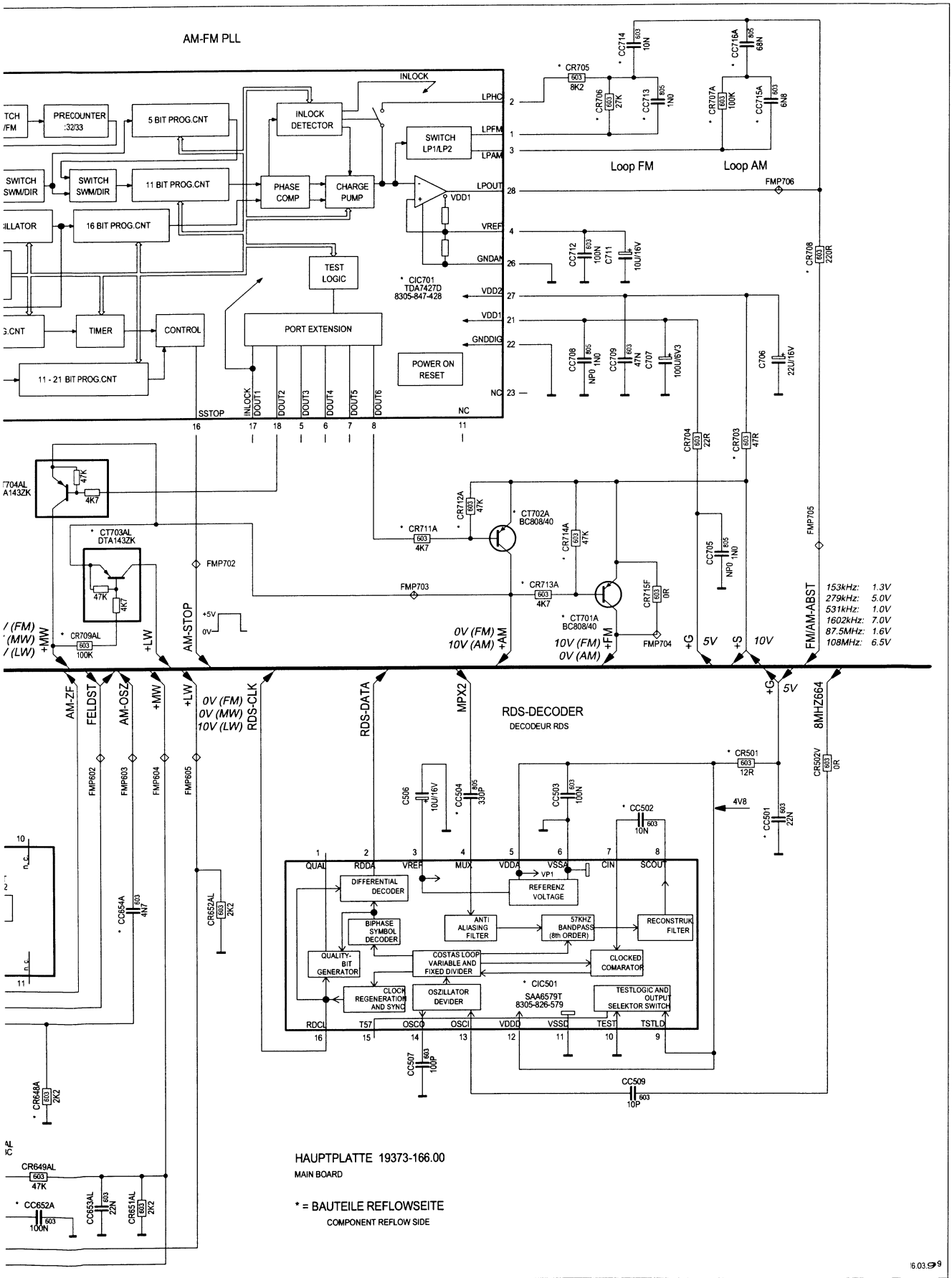


POS.NR	BV-NR./LFDNR.	SACH-NR.	KENNFARBE
L03	1310-003.00	8140-533-904	
L04	1302-001/9/76	8140-530-270	GRUEN 530-270
L06	1302-001/9/75	8140-530-269	GELB 530-269
L05	1315-004	8141-154-350	C805PC-0683N
L101	1310-001/256	8140-535-256	835-256
F01V	1332-002/121	8602-222-121	bei Medium
	1332-002/121	8602-222-121	bei High
F02	1332-002/080	8602-223-080	
F03V	1332-002/190	8602-222-190	bei Medium
	1332-002/130	8602-222-130	bei High
F102	1332-002/190	8602-222-190	
L601A	1310-003/165	8140-533-165	533-165
L602AL	1310-003/118	8140-533-118	533-118
L604A	1310-003/131	8140-533-131	131
L606A	1310-001/116	8140-535-116	116
L607AL	1310-001/106	8140-535-106	106
F601AH	1332-001/055	8602-810-055	SFPS450H

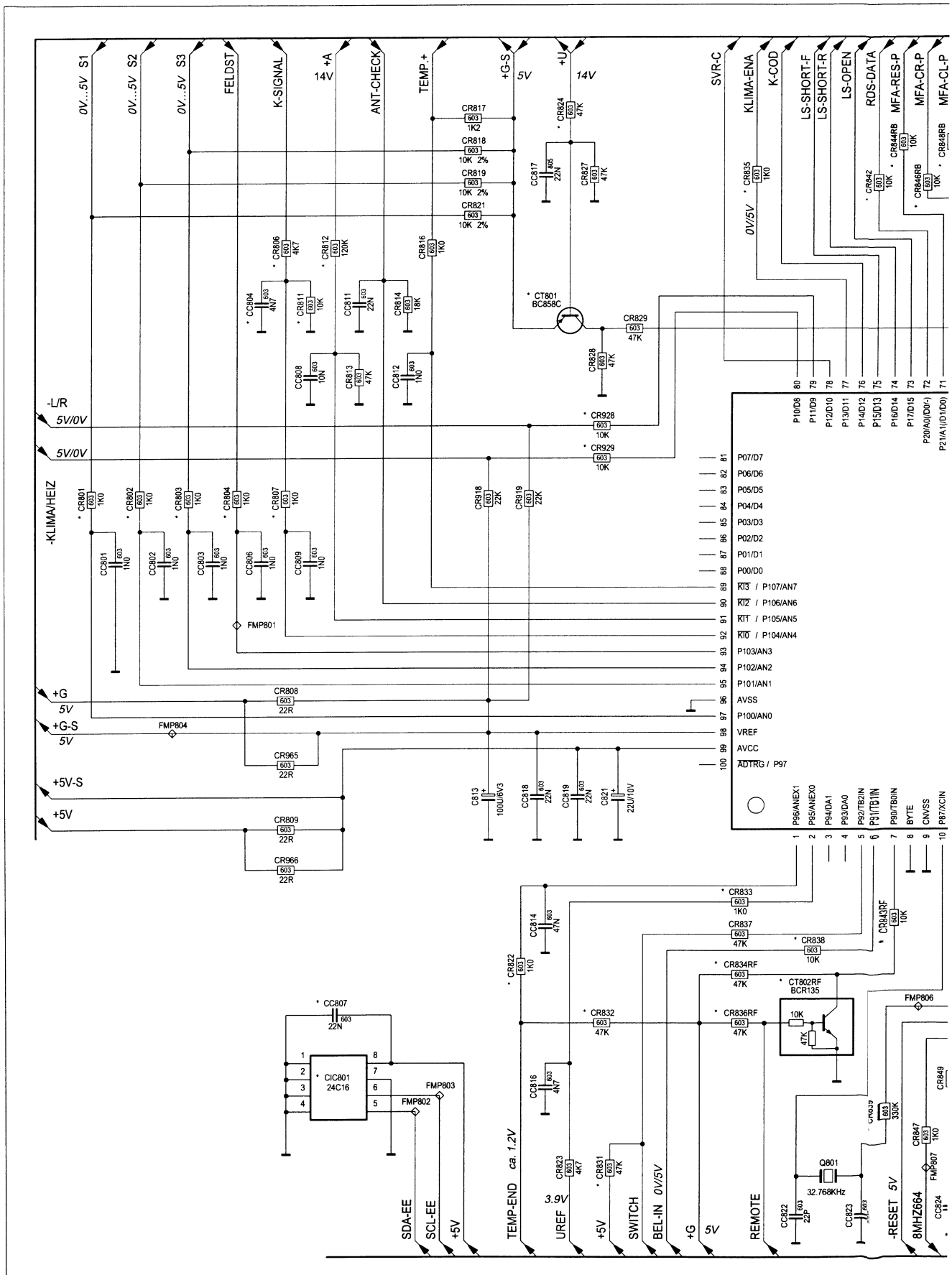
FMP01 FMP02 FMP03 FMP04 FMP2401

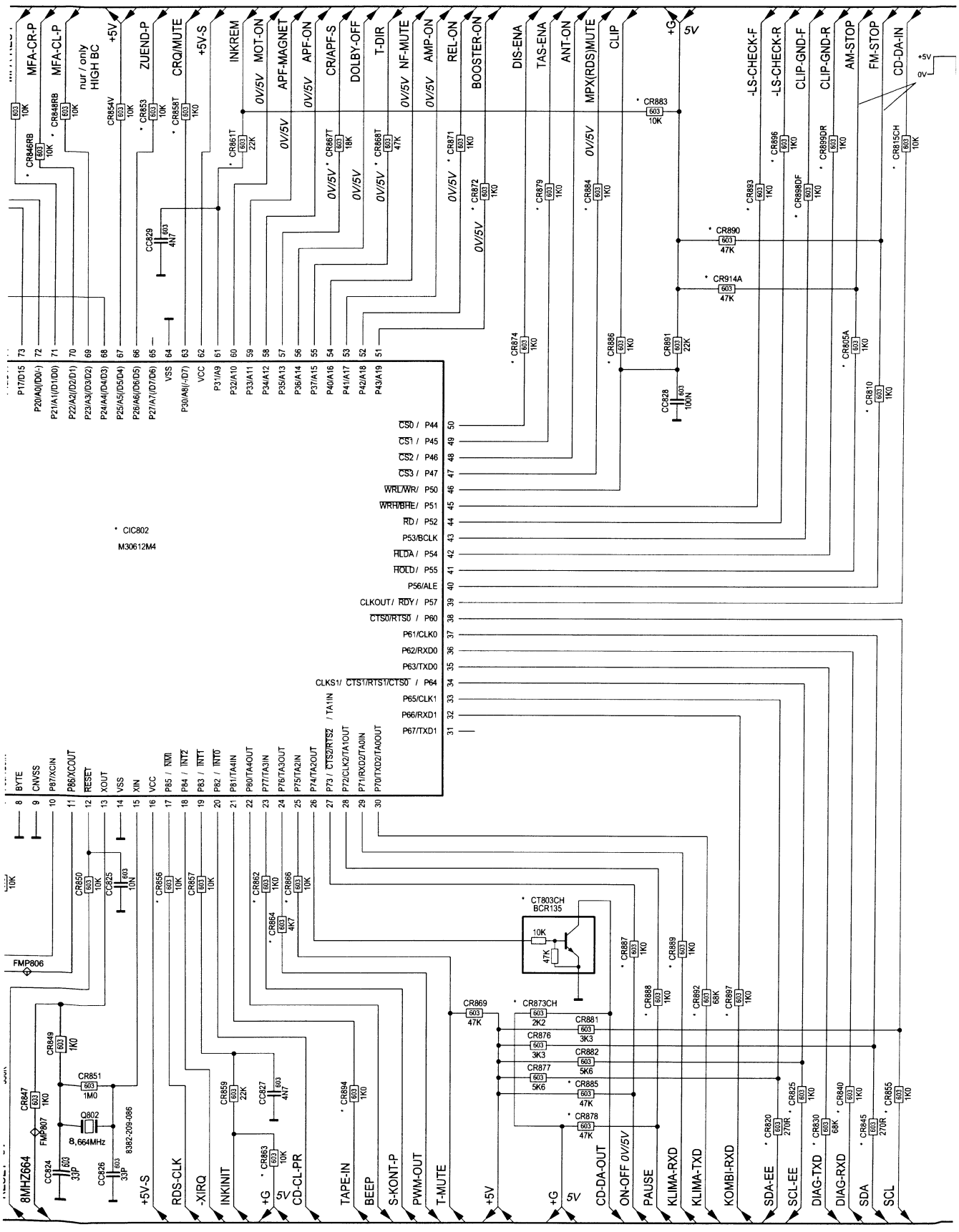

FM-ZF
FM IF
AM-TEIL
AM SECTION
SPANNUNGSVERSORGUNG FUER AKTIVANTENNE
VOLTAGE SUPPLY FOR ACTIVE AERIAL (DC)
MIXER
IF1
IF2
LOCAL OSCI
VOLTAGE REG.
IF & DETECTOR
8305-154-065
ZF-VERSTAERKER
PEGEL-DETEKTOR
UST
UREF
CIC101 TDA1593T
F102 8602-222-190
8602-222-121
8602-223-080
8602-222-190
+FM
10V (FM)
0V (AM)
FELDST
MPX
K-SIGNAL
AM-ANT
ca. 12V0
+S
14V
FM-OSZ
FMP05
FMP06
FMP101
FMP601
L601A 8140-533-165
MW
L602AL 8140-533-118
LW
CT601A BF992A
CT602AL BC818/40
CT103 BC848C
CT2406P BC848C
CT2407P BCR135
T2104P BC368
L2401V 1000UH
CD2401P Z47
CD601FZ BAV99
CD606A BAS16
8775-009-089
8140-530-269
8325-325-805
8140-154-350
BB804

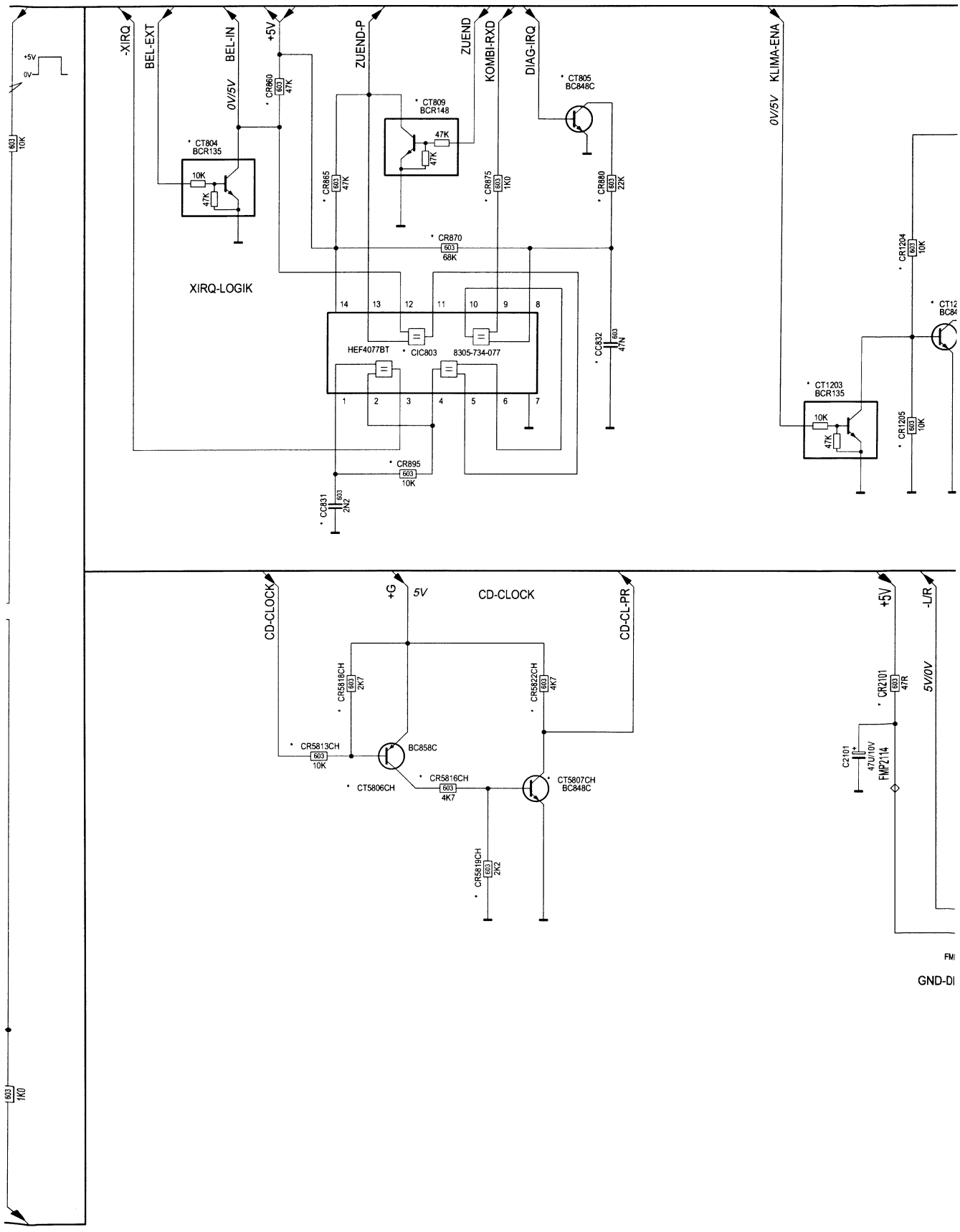

FMP102
FMP103
FMP104
FMP701
K-SIGNAL
MPX(RDS)MUTE
5V/0V
UREF
3.9V
FM-STOP
FM-OSZ
AM-OSZ
SCL
SDA
AM-ZF
0V (FM)
10V (MW)
0V (LW)
+MW
FM/AM-ABST
153kHz: 1.3V
279kHz: 5.0V
531kHz: 1.0V
1602kHz: 7.0V
87.5MHz: 1.6V
108MHz: 6.5V
0V (FM)
10V (AM)
+AM
AM-NF
AM AF
ABSTIMM-STOP-LOGIK
QUADRATUR DEMOD.
STUMM-SCHALTUNG
VERSTIMM-DETEKTOR
KLIRRFAKT-KOMP.
50khz
1MHZ
FM-AUS
L101
8140-535-256
SWITCH AM/FM
SWITCH SWM/DIR
REF.OSCILLATOR
I2C BUS INTERFACE
14 BIT PROG.CNT
HFREF
10MHz25
8382-212-102
DOUBLE BALANCED MIXER
STANDBY SWITCH
GAIN CONTROLLED IF AMPLIFIER
BALANCED FULL-WAVE DETECTOR
AF PRE-AMPLIFIER
AGC AMPLIFIER
GAIN-CONTROLLED RF STAGE
INTERNAL SUPPLY VOLTAGES
CONTROLLED OSCILLATOR
INDIKATOR DRIVER
IF AMPLIFIER
L604A
8140-533-131
F601AH
8602-810-055
L606A
8140-535-116
MW
LW
L607AL
8140-535-106
BF543
BC848C
BC818/40
KV1561
CD501A
TDA1572T
8305x4 1-572

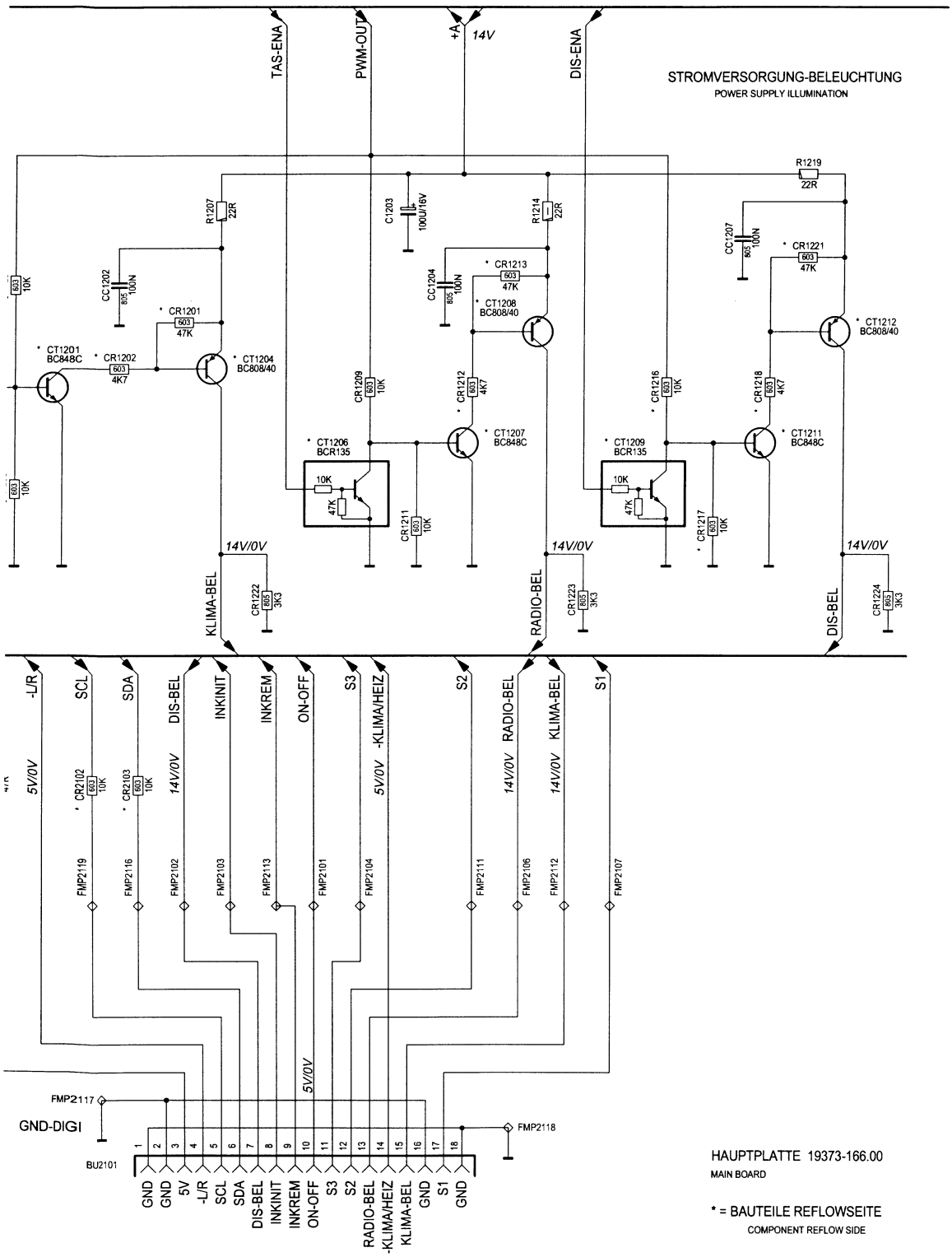

AM-FM PLL
INLOCK
PRECOUNTER :32/33
5 BIT PROG.CNT
INLOCK DETECTOR
SWITCH LP1/LP2
11 BIT PROG.CNT
PHASE COMP
CHARGE PUMP
16 BIT PROG.CNT
TEST LOGIC
TIMER
CONTROL
PORT EXTENSION
POWER ON RESET
11 - 21 BIT PROG.CNT
* CIC701 TDA7427D 8305-847-428
LPHC
LPFM
LPAM
LPOUT
VDD1
VREF
GNDAN
VDD2
VDD1
GNDDIG
NC
SSTOP
INLOCK
DOUT1
DOUT2
DOUT3
DOUT4
DOUT5
DOUT6
Loop FM
Loop AM
FMP706
FMP705
FMP702
FMP703
FMP704
AM-STOP
+MW
+LW
+FM
+G
5V
+S
10V
FM/AM-ABST
153kHz: 1.3V
279kHz: 5.0V
531kHz: 1.0V
1602kHz: 7.0V
87.5MHz: 1.6V
108MHz: 6.5V
0V (FM)
10V (AM)
10V (FM)
0V (AM)
AM-ZF
FELDST
AM-OSZ
RDS-CLK
RDS-DATA
MPX2
RDS-DECODER
DECODEUR RDS
8MHZ664
FMP602
FMP603
FMP604
FMP605
QUAL
RDDA
VREF
MUX
VDDA
VSSA
CIN
SCOUT
DIFFERENTIAL DECODER
REFERENZ VOLTAGE
BIPHASE SYMBOL DECODER
ANTI ALIASING FILTER
57KHZ BANDPASS (8th ORDER)
RECONSTRUK FILTER
QUALITY-BIT GENERATOR
COSTAS LOOP VARIABLE AND FIXED DIVIDER
CLOCKED COMARATOR
CLOCK REGENERATION AND SYNC
OSZILLATOR DEVIDER
* CIC501 SAA6579T 8305-826-579
TESTLOGIC AND OUTPUT SELEKTOR SWITCH
RDCL
T57
OSCO
OSCI
VDDD
VSSD
TEST
TSTLD
HAUPTPLATTE 19373-166.00
MAIN BOARD
* = BAUTEILE REFLOWSEITE
COMPONENT REFLOW SIDE

Prozessor-Teil / Processor Part




MFA-CR-P
MFA-CL-P
nur / only HIGH BC
+5V
ZUEND-P
CRQ/MUTE
+5V-S
INKREM
MOT-ON
APF-MAGNET
APF-ON
CR/APF-S
DOLBY-OFF
T-DIR
NF-MUTE
AMP-ON
REL-ON
BOOSTER-ON
DIS-ENA
TAS-ENA
ANT-ON
MPX(RDS)MUTE
CLIP
+G
5V
-LS-CHECK-F
-LS-CHECK-R
CLIP-GND-F
CLIP-GND-R
AM-STOP
FM-STOP
CD-DA-IN
CIC802
M30612M4
FMP806
FMP807
8MHZ664
8,664MHz
Q802
8382-209-086
RDS-CLK
-XIRQ
INKINIT
+G
5V
CD-CL-PR
TAPE-IN
BEEP
S-KONT-P
PWM-OUT
T-MUTE
+5V
+G
5V
CD-DA-OUT
ON-OFF 0V/5V
PAUSE
KLIMA-RXD
KLIMA-TXD
KOMBI-RXD
SDA-EE
SCL-EE
DIAG-TXD
DIAG-RXD
SDA
SCL
CT803CH BCR135

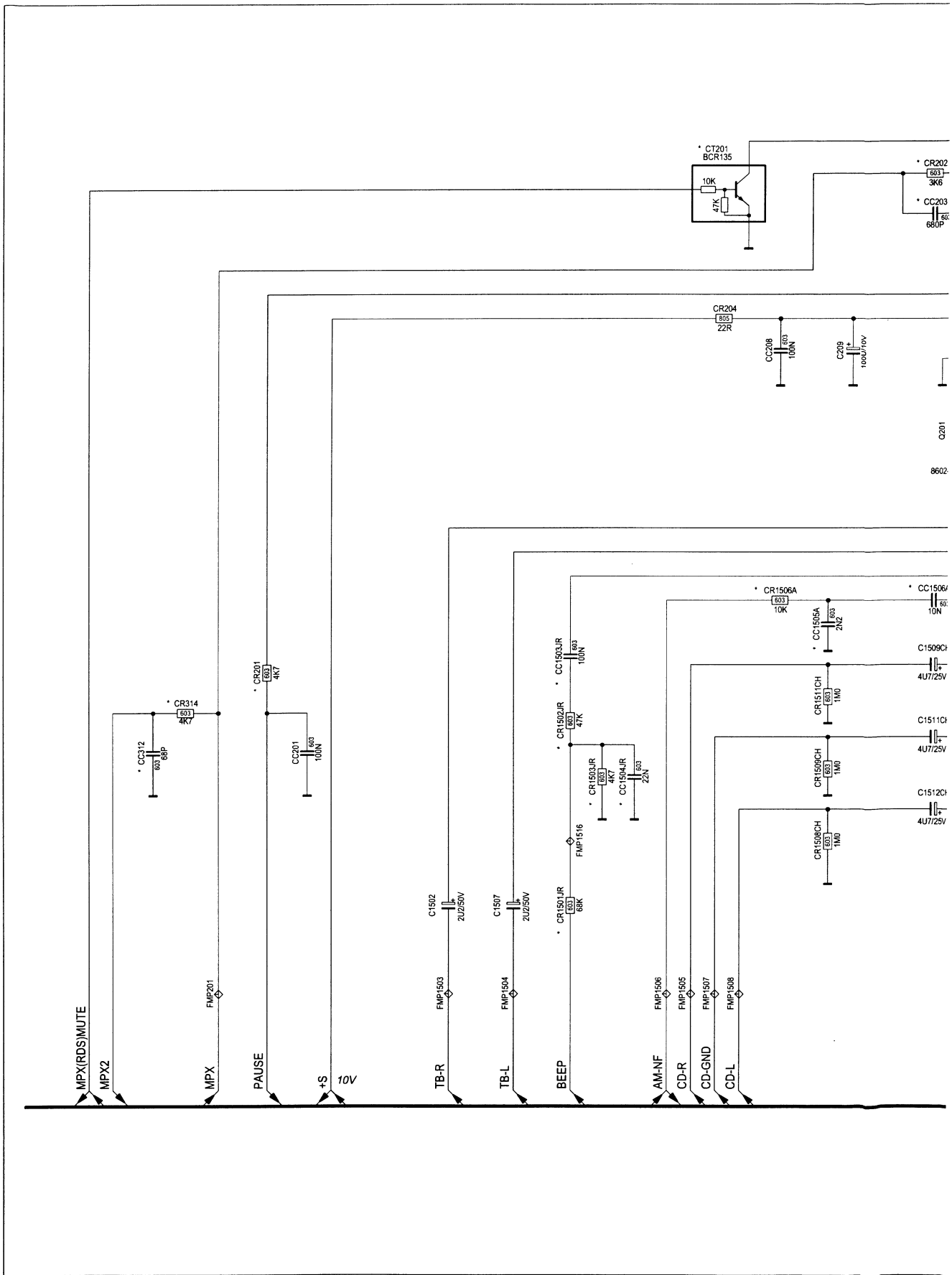

-XIRQ
BEL-EXT
BEL-IN
0V/5V
+5V
ZUEND-P
ZUEND
KOMBI-RXD
DIAG-IRQ
KLIMA-ENA
0V/5V
CT805 BC848C
CT809 BCR148
CT804 BCR135
CR860 603 47K
CR865 603 47K
CR875 603 1K0
CR880 603 22K
CR870 603 68K
XIRQ-LOGIK
HEF4077BT
CIC803
8305-734-077
CC832 603 47N
CR895 603 10K
CC831 603 2N2
CT1203 BCR135
CR1204 603 10K
CR1205 603 10K
CD-CLOCK
+5V
CD-CLOCK
CD-CL-PR
CR5818CH 603 2K7
CR5822CH 603 4K7
CR5813CH 603 10K
BC858C
CR5816CH 603 4K7
CT5806CH
CT5807CH BC848C
CR5819CH 603 2K2
+5V
-L/R
CR2101 603 47R
5V/0V
C2101 47U/10V
FMP2114
GND-DI
603 10K
603 1K0



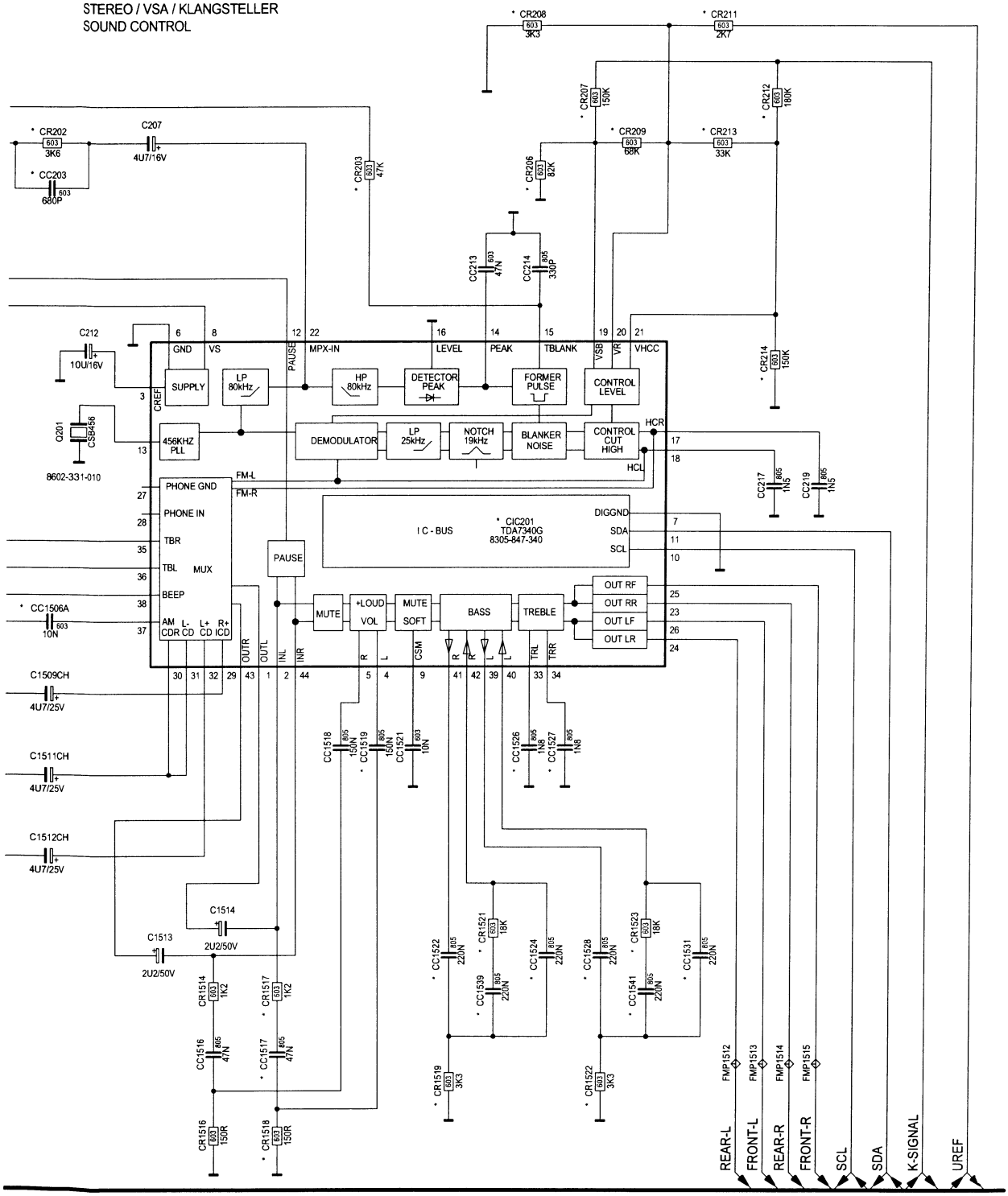
14 FMP2117 FMP2102 FMP2113 FMP2104 FMP2111 FMP2106 FMP2112 FMP2107
FMP2119 FMP2116 FMP2103 FMP2101 FMP2118

10.03.99

Klangsteller / Sound Control



MESSPUNKTE	FMP201	FMP1503	FMP1504	FMP1516	FMP1506 FMP1507 FMP1505 FMP1508	
ABGLEICHPUNKTE						



HAUPTPLATTE 19373-166.00
MAIN BOARD

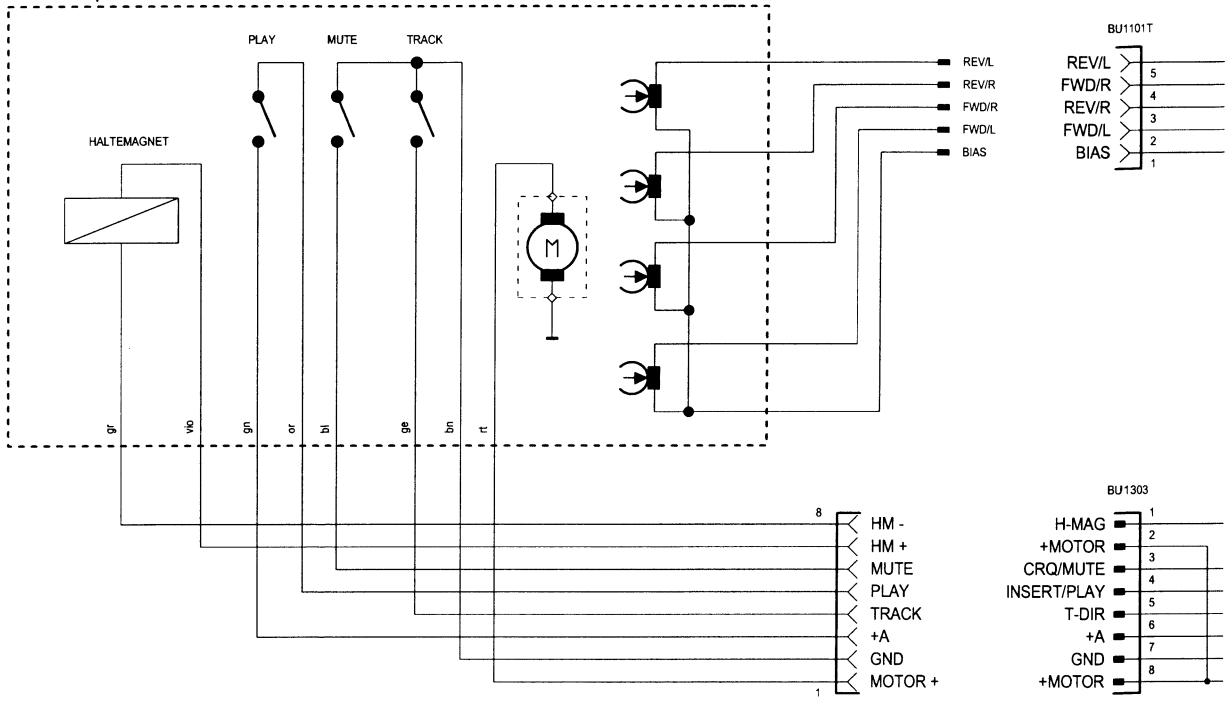
* = BAUTEILE REFLOWSEITE
COMPONENT REFLOW SIDE

FMP1512 FMP1514
FMP1513 FMP1515

10.03.

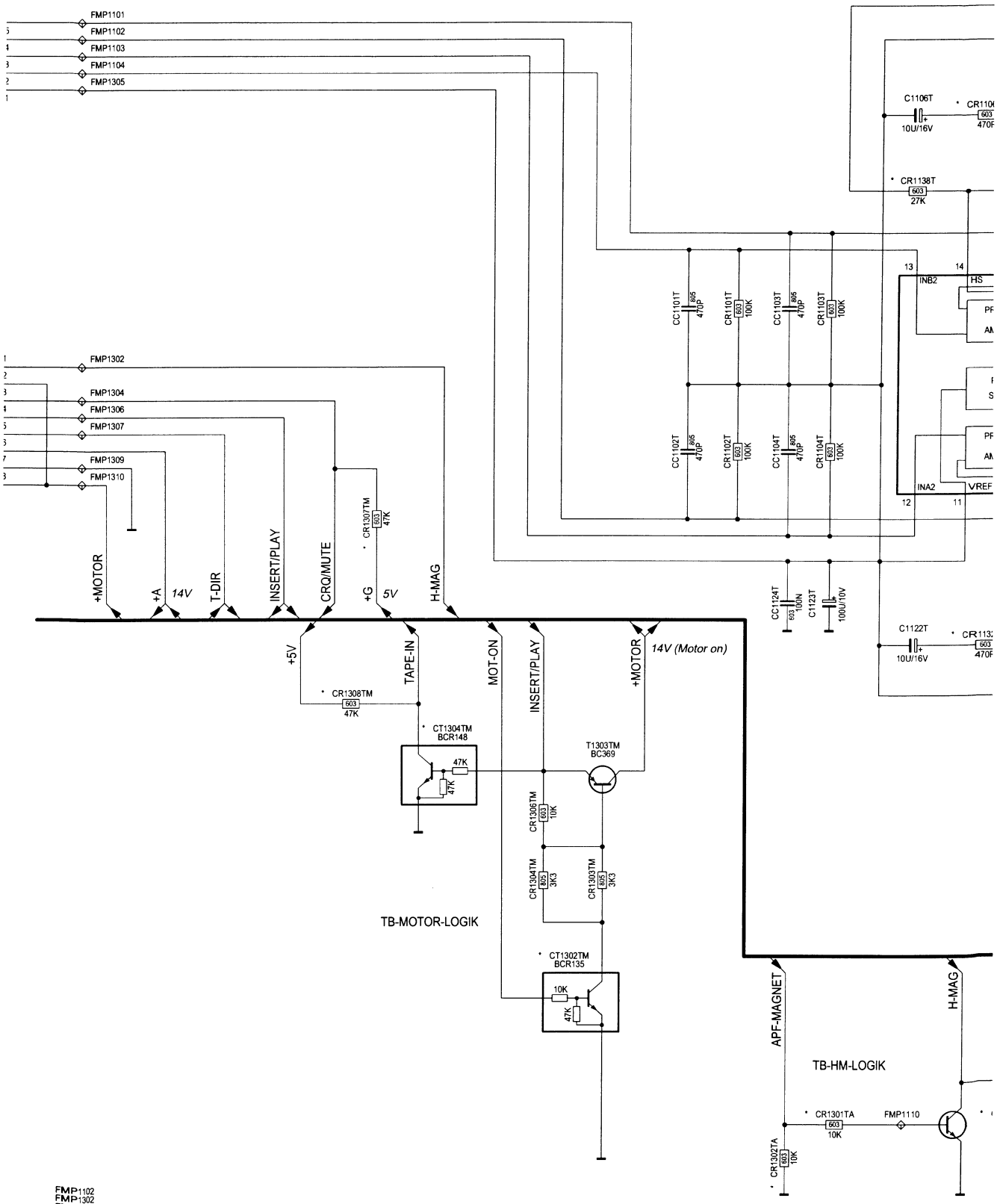
Kassetten-Teil / Cassette Part

Mech. Laufwerk LCA 3-3/2
Mech. Tape Drive LCA 3-3/2

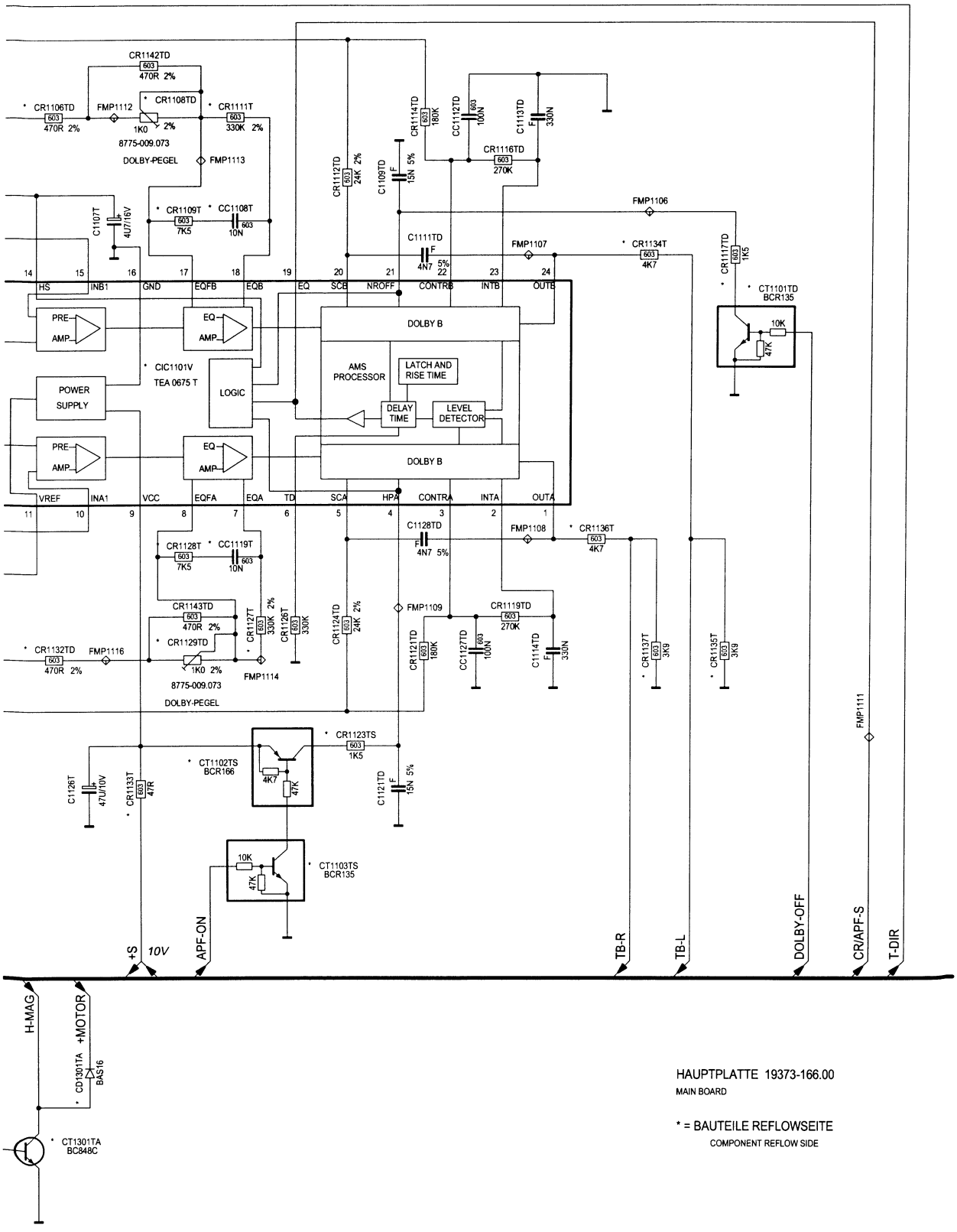


MESSPUNKTE ◇

ABGLEICHPUNKTE ○


FMP1101
FMP1102
FMP1103
FMP1104
FMP1305
FMP1302
FMP1304
FMP1306
FMP1307
FMP1309
FMP1310
+MOTOR
+A
14V
T-DIR
INSERT/PLAY
CRQ/MUTE
+G
5V
H-MAG
CR1307TM 603 47K
C1106T 10U/16V
CR1138T 603 27K
CC1101T 805 470P
CR1101T 603 100K
CC1103T 805 470P
CR1103T 603 100K
CC1102T 805 470P
CR1102T 603 100K
CC1104T 805 470P
CR1104T 603 100K
INB2
INA2
VREF
CC1124T 603 100N
C1123T 100U/10V
C1122T 10U/16V
+5V
TAPE-IN
MOT-ON
INSERT/PLAY
+MOTOR
14V (Motor on)
CR1308TM 603 47K
CT1304TM BCR148
47K
47K
T1303TM BC369
CR1306TM 603 10K
CR1304TM 805 3K3
CR1303TM 805 3K3
TB-MOTOR-LOGIK
CT1302TM BCR135
10K
47K
APF-MAGNET
H-MAG
TB-HM-LOGIK
CR1301TA 603 10K
FMP1110
CR1302TA 603 10K
FMP1102
FMP1302
FMP1303
FMP1304
FMP1305
FMP1306
FMP1307
FMP1309
FMP1310
FMP1110

ENTZERRER-VORVER. / DOLBY / MUSIKSUCHLAUF
EQUALIZER PRE AMPLIFIER / DOLBY / APF



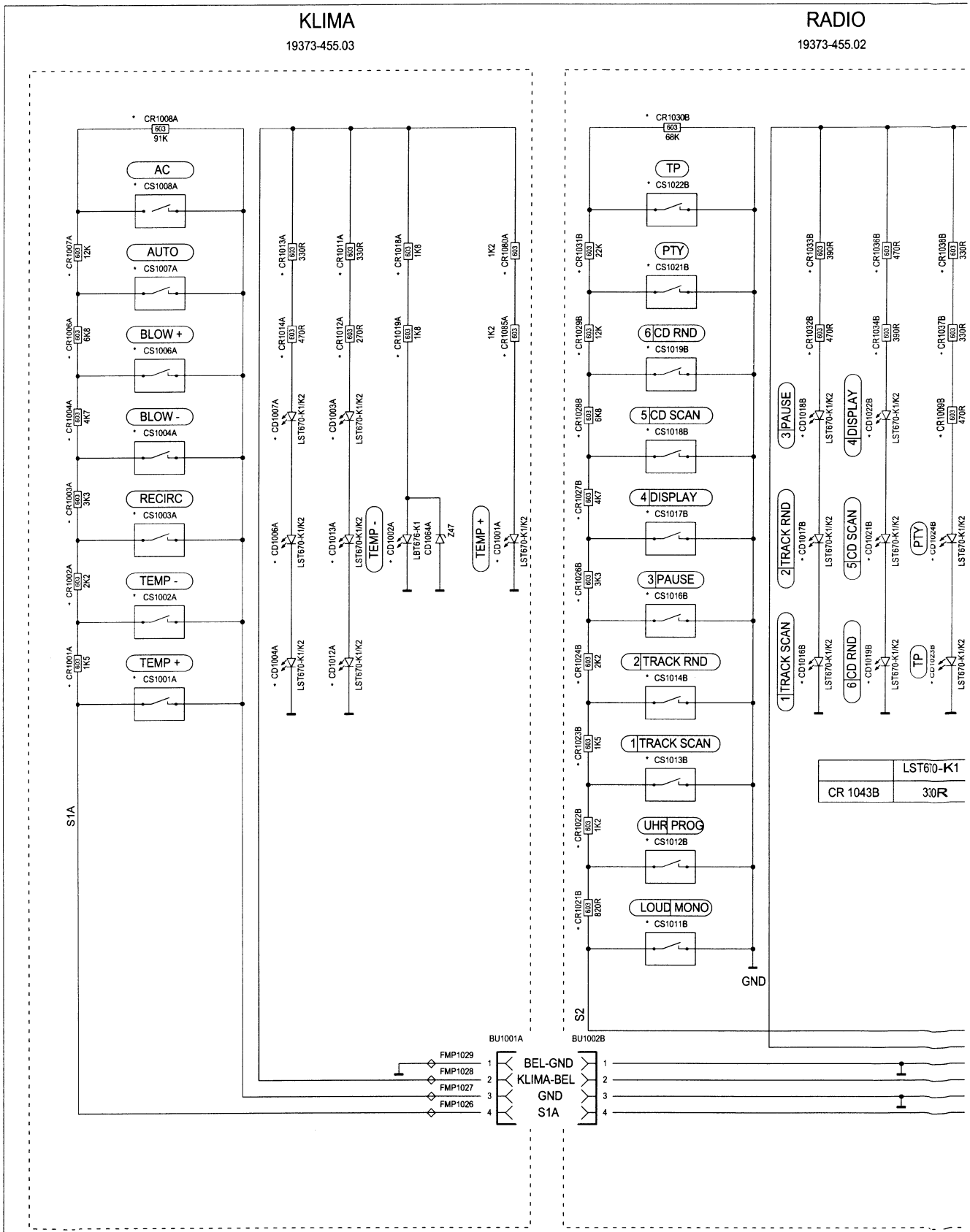
HAUPTPLATTE 19373-166.00
MAIN BOARD

* = BAUTEILE REFLOWSEITE
COMPONENT REFLOW SIDE

FMP1112 FMP1116	FMP1113	FMP1114	FMP1109	FMP1107 FMP1108	FMP1106	FMP1111

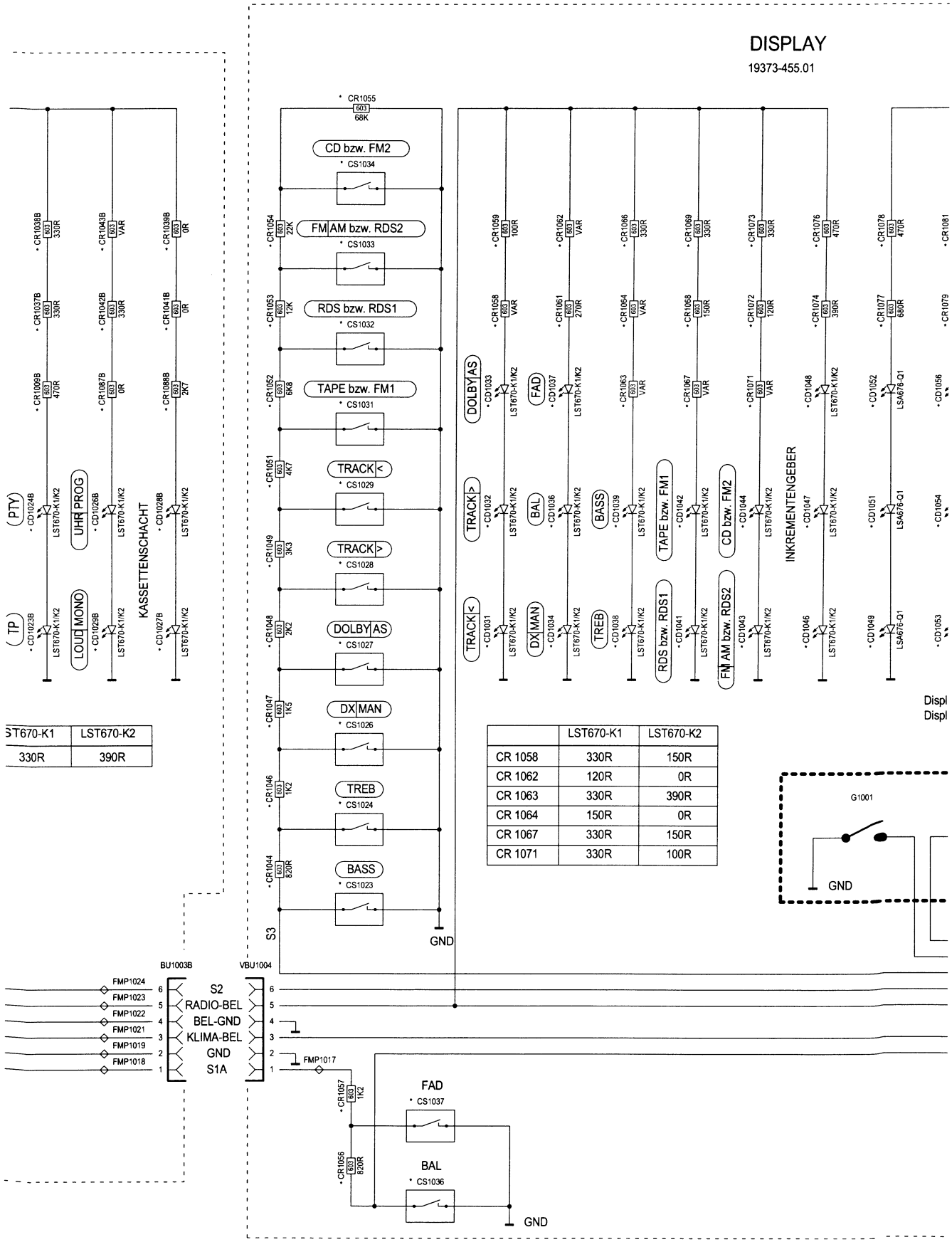
10.03.99

Bedienplatte Radio , Bedienplatte Klima, Displayplatte
Operating Board Radio, Operating Board Climate, Diplay Board



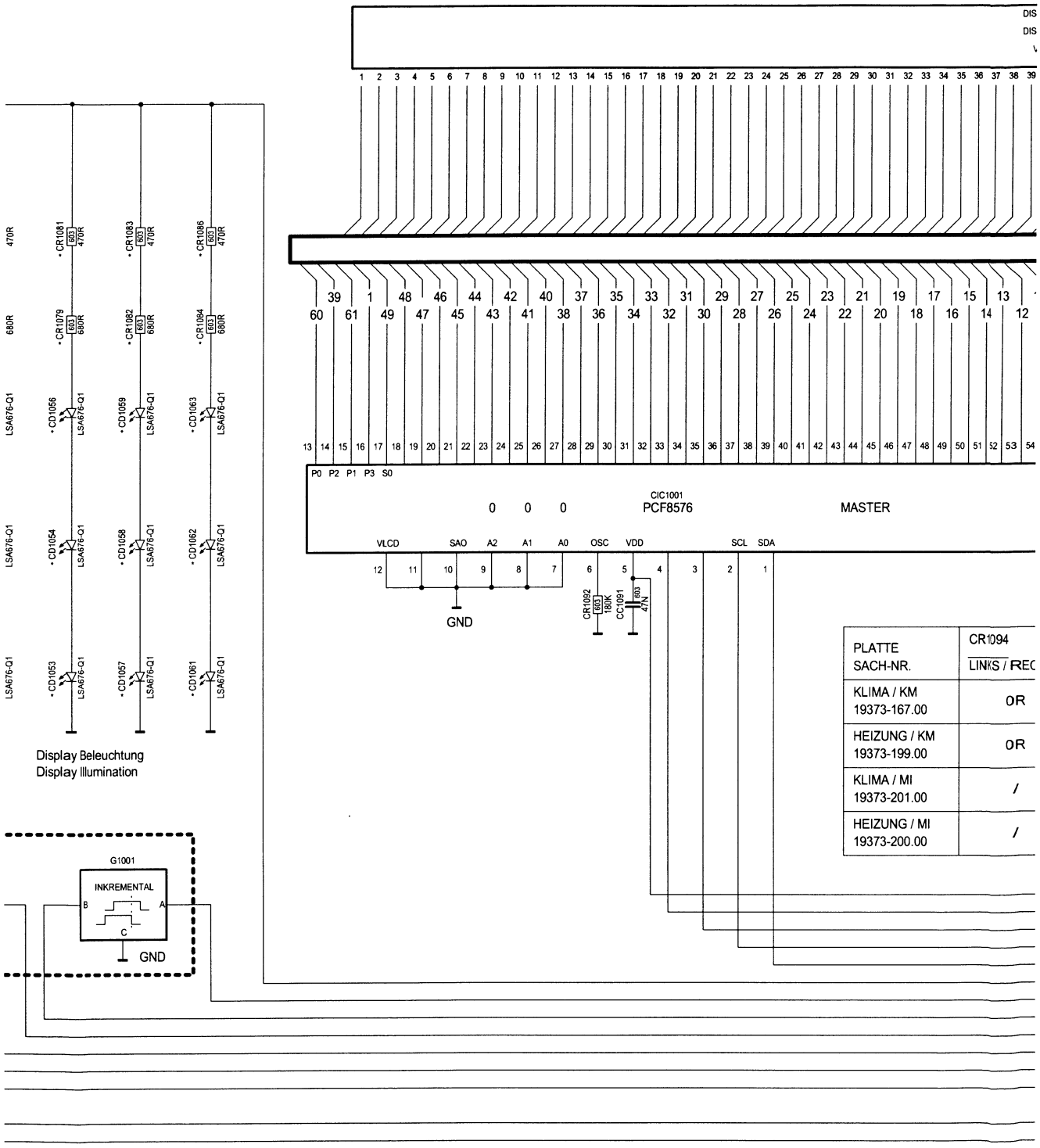
MESSPUNKTE ◇

ABGLEICHPUNKTE ○



ST670-K1	LST670-K2
330R	390R

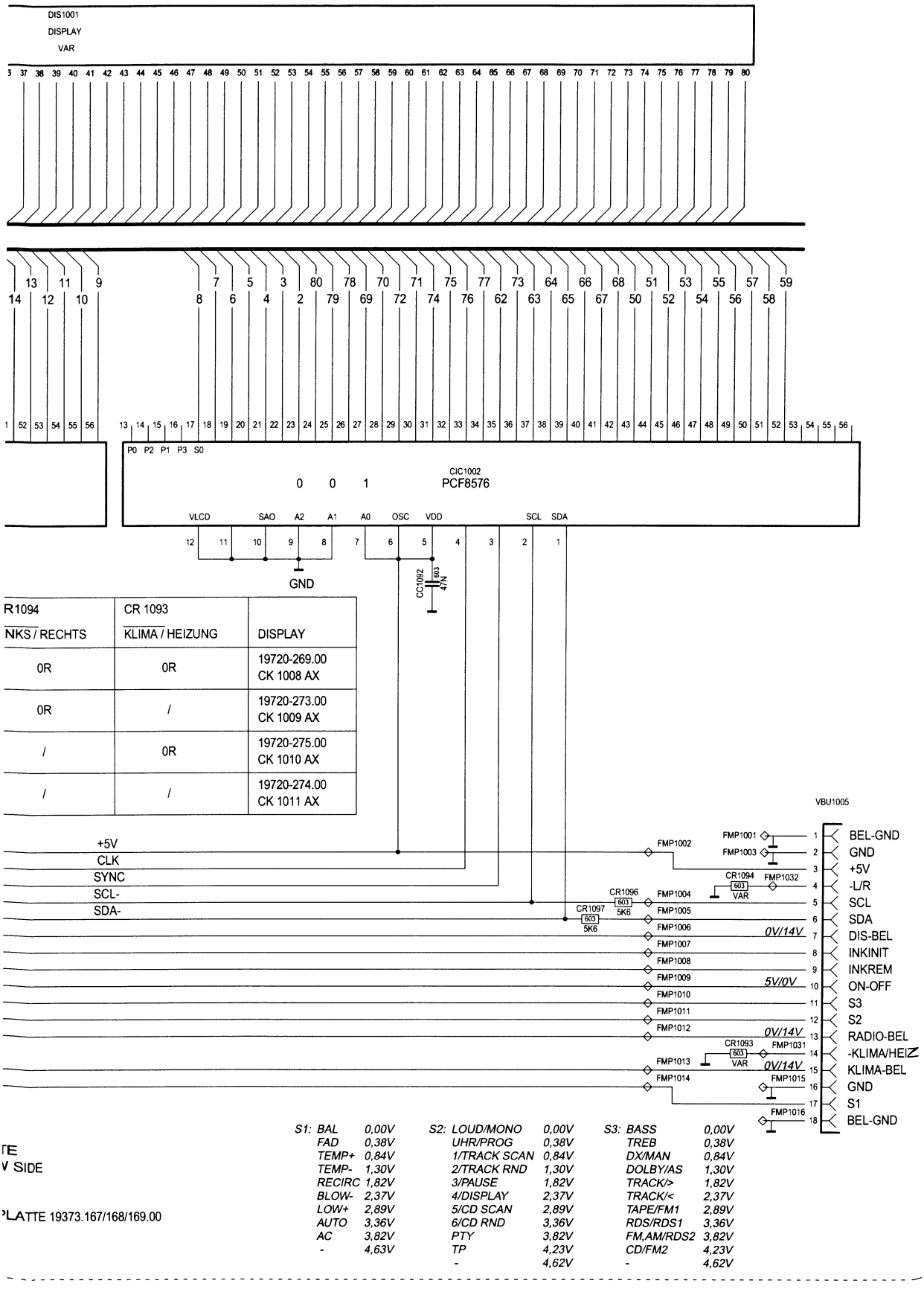
	LST670-K1	LST670-K2
CR 1058	330R	150R
CR 1062	120R	0R
CR 1063	330R	390R
CR 1064	150R	0R
CR 1067	330R	150R
CR 1071	330R	100R



PLATTE SACH-NR.	CR1094 LINKS / REC
KLIMA / KM 19373-167.00	0R
HEIZUNG / KM 19373-199.00	0R
KLIMA / MI 19373-201.00	/
HEIZUNG / MI 19373-200.00	/

* = BAUTEILE REFLOWSEITE
* = COMPONENTS REFLOW SIDE

DISPLAY / RADIO / KLIMA - PLATTE 19
DISPLAY / RADIO / CLIMATE - BOARD



R1094 NKS / RECHTS	CR 1093 KLIMA / HEIZUNG	DISPLAY
0R	0R	19720-269.00 CK 1008 AX
0R	/	19720-273.00 CK 1009 AX
/	0R	19720-275.00 CK 1010 AX
/	/	19720-274.00 CK 1011 AX

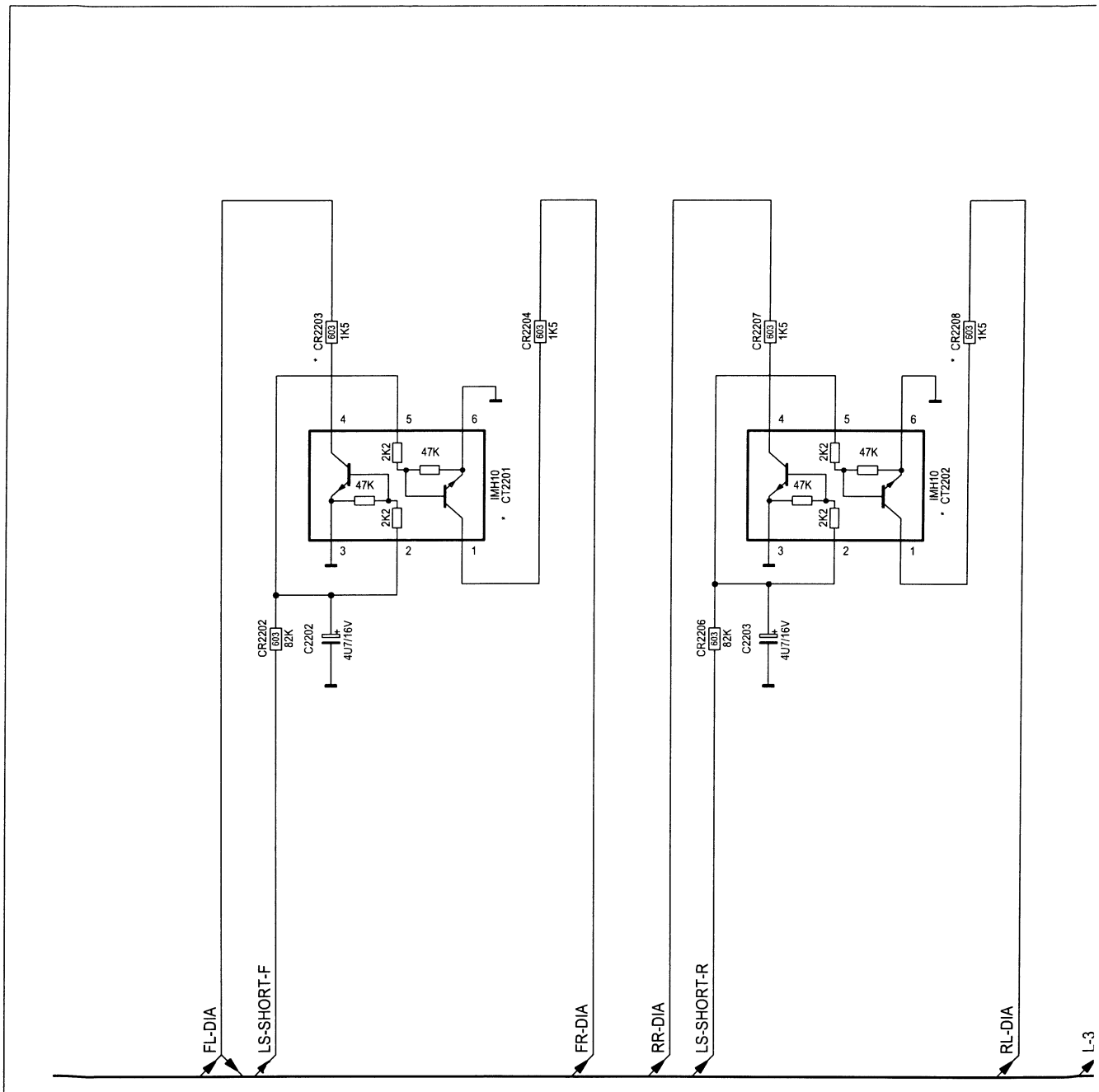
S1:		S2:		S3:	
BAL	0,00V	LOUD/MONO	0,00V	BASS	0,00V
FAD	0,38V	UHR/PROG	0,38V	TREB	0,38V
TEMP+	0,84V	1/TRACK SCAN	0,84V	DX/MAN	0,84V
TEMP-	1,30V	2/TRACK RND	1,30V	DOLBY/AS	1,30V
RECIRC	1,82V	3/PAUSE	1,82V	TRACK/>	1,82V
BLOW-	2,37V	4/DISPLAY	2,37V	TRACK/<	2,37V
LOW+	2,89V	5/CD SCAN	2,89V	TAPE/FM1	2,89V
AUTO	3,36V	6/CD RND	3,36V	RDS/RDS1	3,36V
AC	3,82V	PTY	3,82V	FM,AM/RDS2	3,82V
-	4,63V	TP	4,23V	CD/FM2	4,23V
		-	4,62V	-	4,62V

TE
V SIDE

PLATTE 19373.167/168/169.00

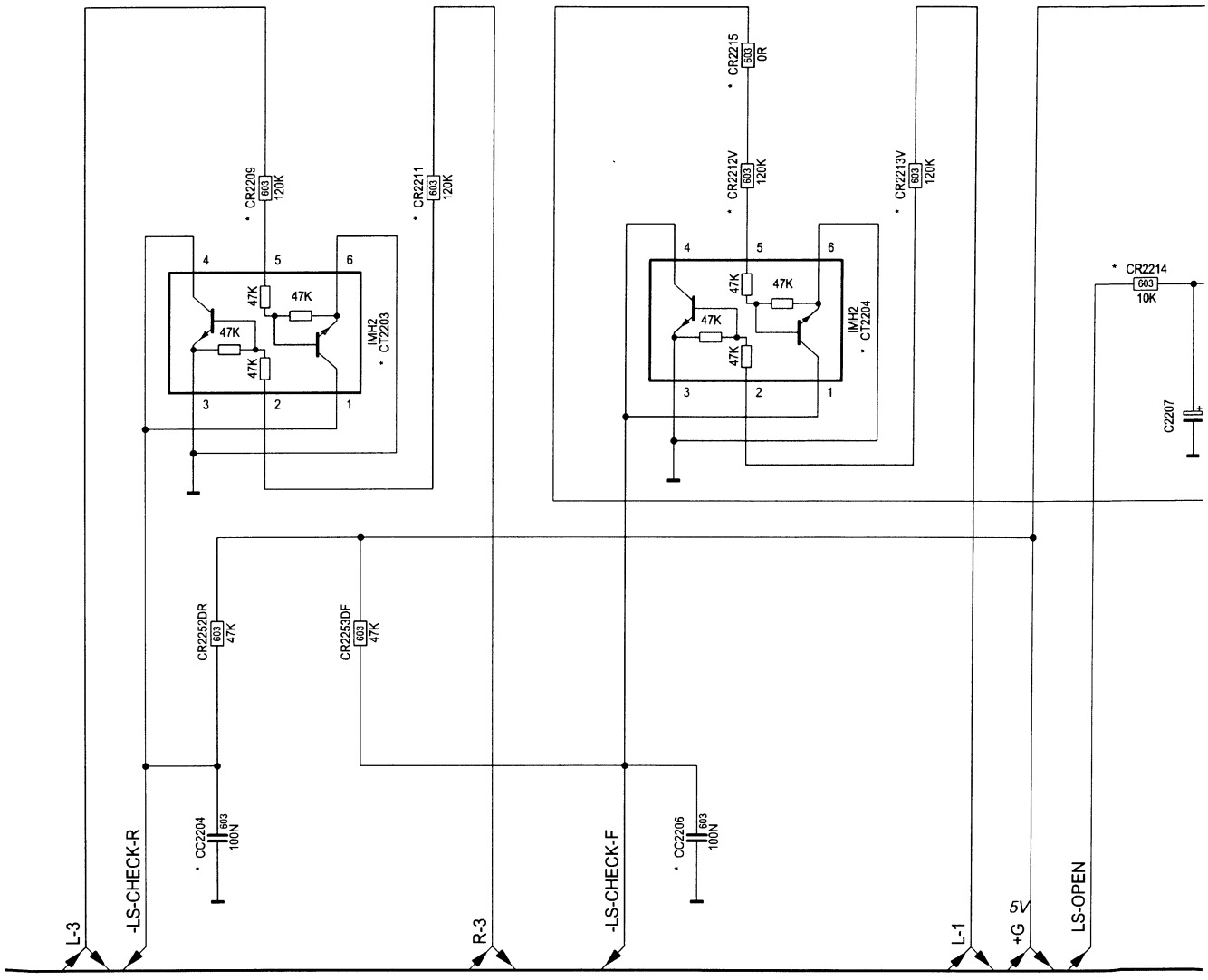
16.03.99

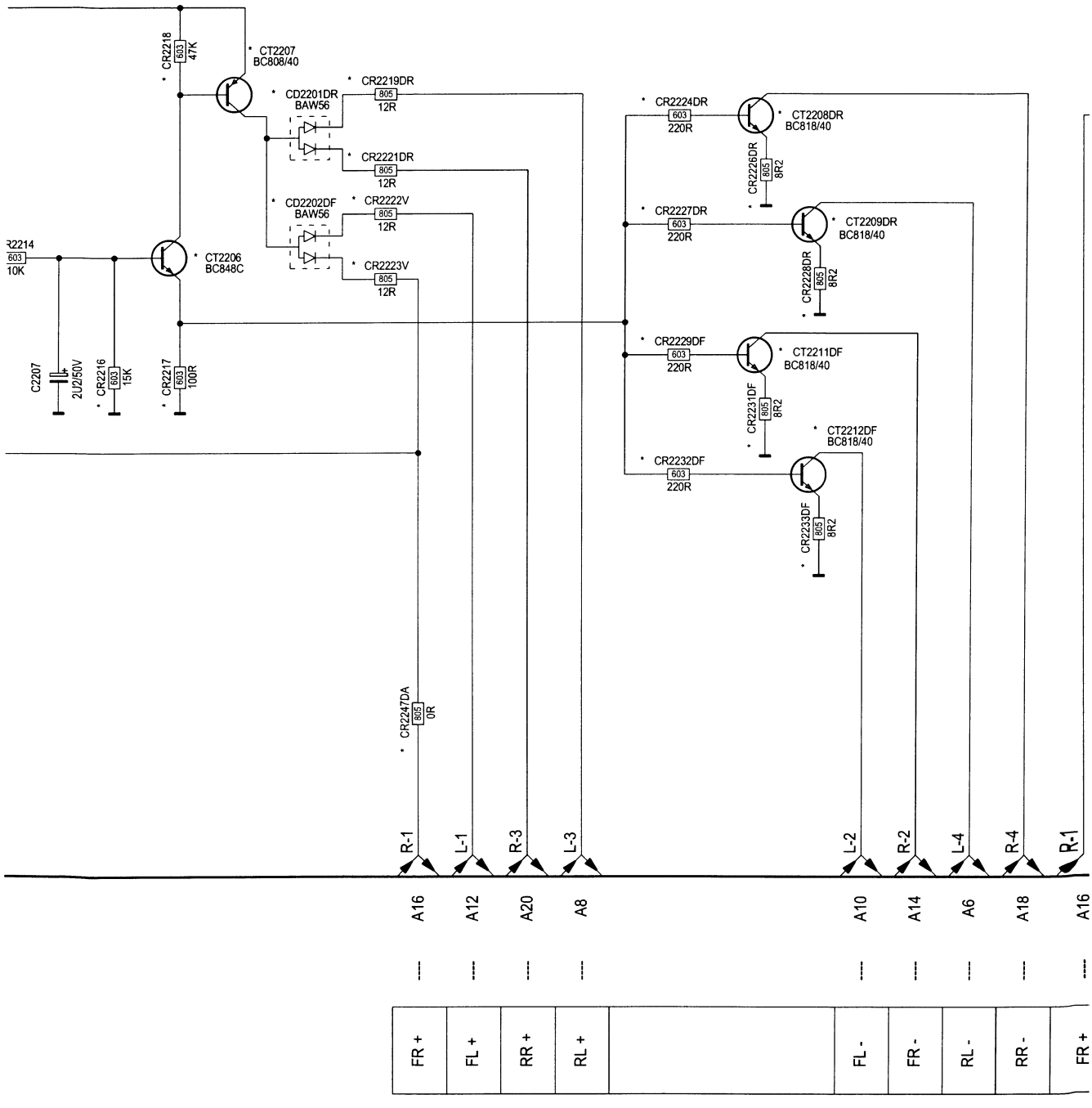
Diagnose / Diagnoses

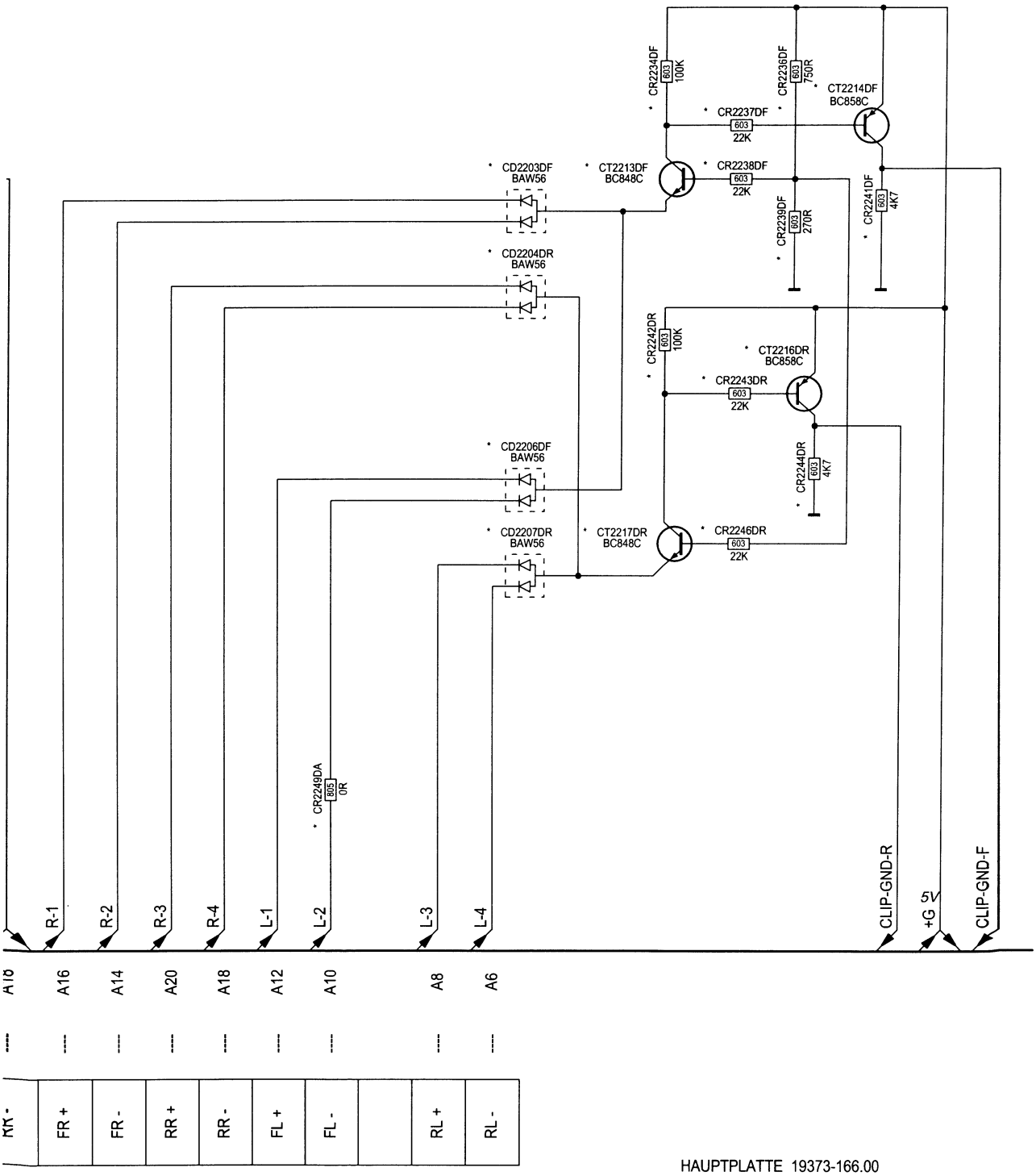


MESSPUNKTE ◇

ABGLEICHPUNKTE ○


* CR2209 603 120K
* CR2211 603 120K
* CR2215 603 0R
* CR2212V 603 120K
* CR2213V 603 120K
* CR2214 603 10K
C2207
IMH2 * CT2203
IMH2 * CT2204
47K
CR2252DR 603 47K
CR2253DF 603 47K
* CC2204 603 100N
* CC2206 603 100N
L-3
-LS-CHECK-R
R-3
-LS-CHECK-F
L-1
5V
+G
LS-OPEN


CR2218 603 47K
CT2207 BC808/40
CD2201DR BAW56
CR2219DR 805 12R
CR2221DR 805 12R
CD2202DF BAW56
CR2222V 805 12R
CR2223V 805 12R
R2214 603 10K
CT2206 BC848C
C2207 2U2/50V
CR2216 603 15K
CR2217 603 100R
CR2247DA 805 0R
CR2224DR 603 220R
CT2208DR BC818/40
CR2226DR 805 8R2
CR2227DR 603 220R
CT2209DR BC818/40
CR2228DR 805 8R2
CR2229DF 603 220R
CT2211DF BC818/40
CR2231DF 805 8R2
CT2212DF BC818/40
CR2232DF 603 220R
CR2233DF 805 8R2
R-1 L-1 R-3 L-3 L-2 R-2 L-4 R-4 R-1
A16 A12 A20 A8 A10 A14 A6 A18 A16
FR + FL + RR + RL + FL - FR - RL - RR - FR +

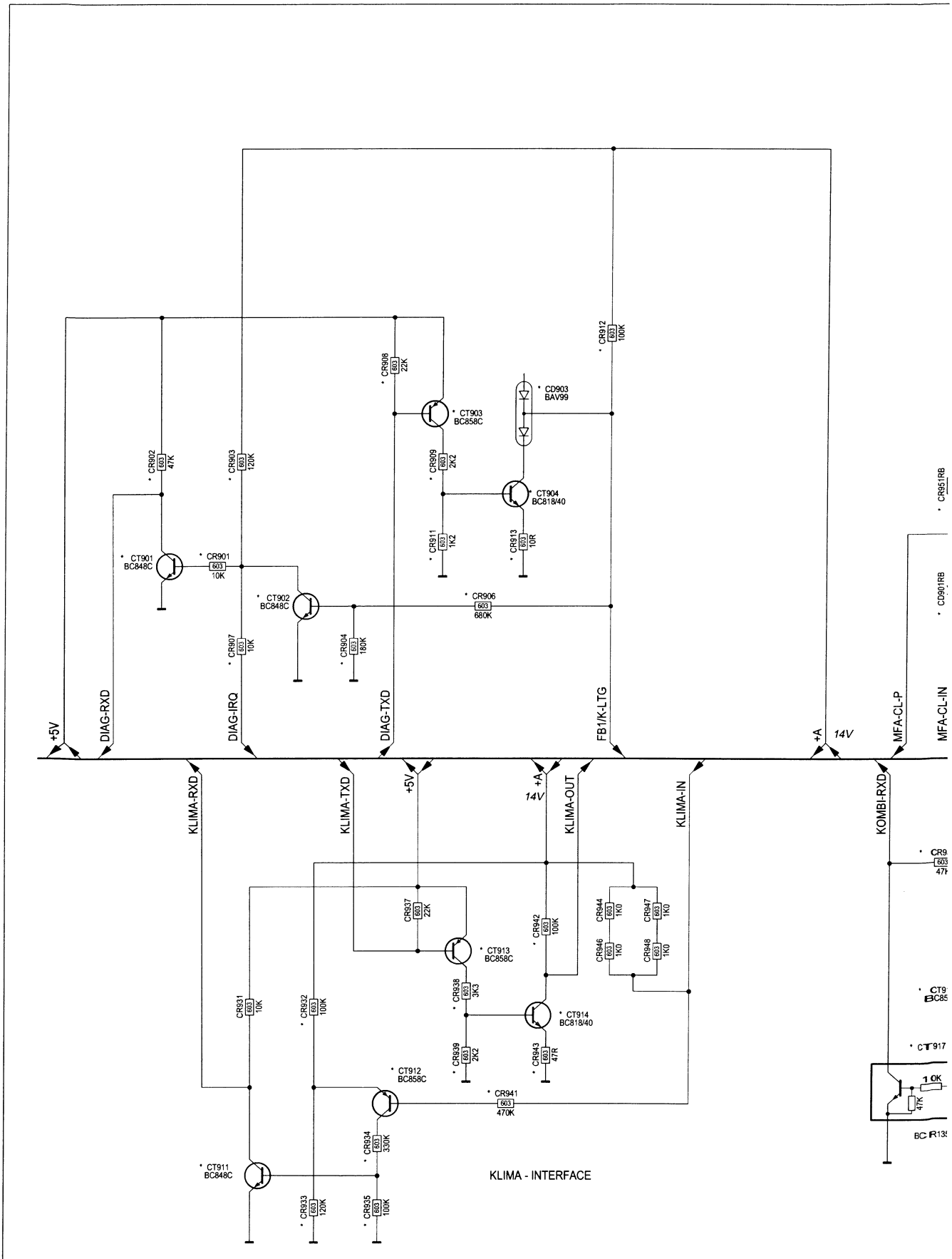


HAUPTPLATTE 19373-166.00
MAIN BOARD

* = BAUTEILE REFLOWSEITE
COMPONENT REFLOW SIDE

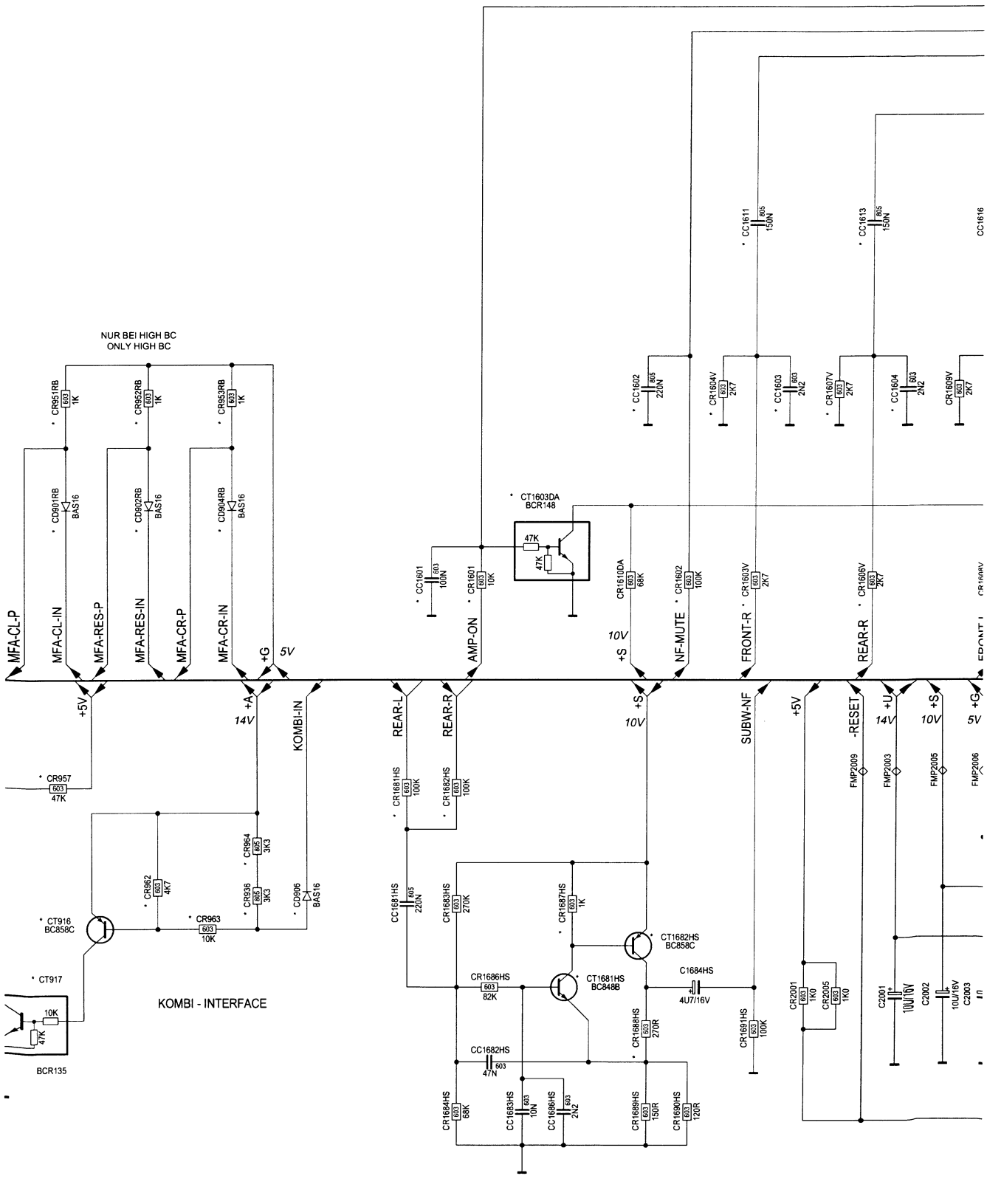
10.03.99

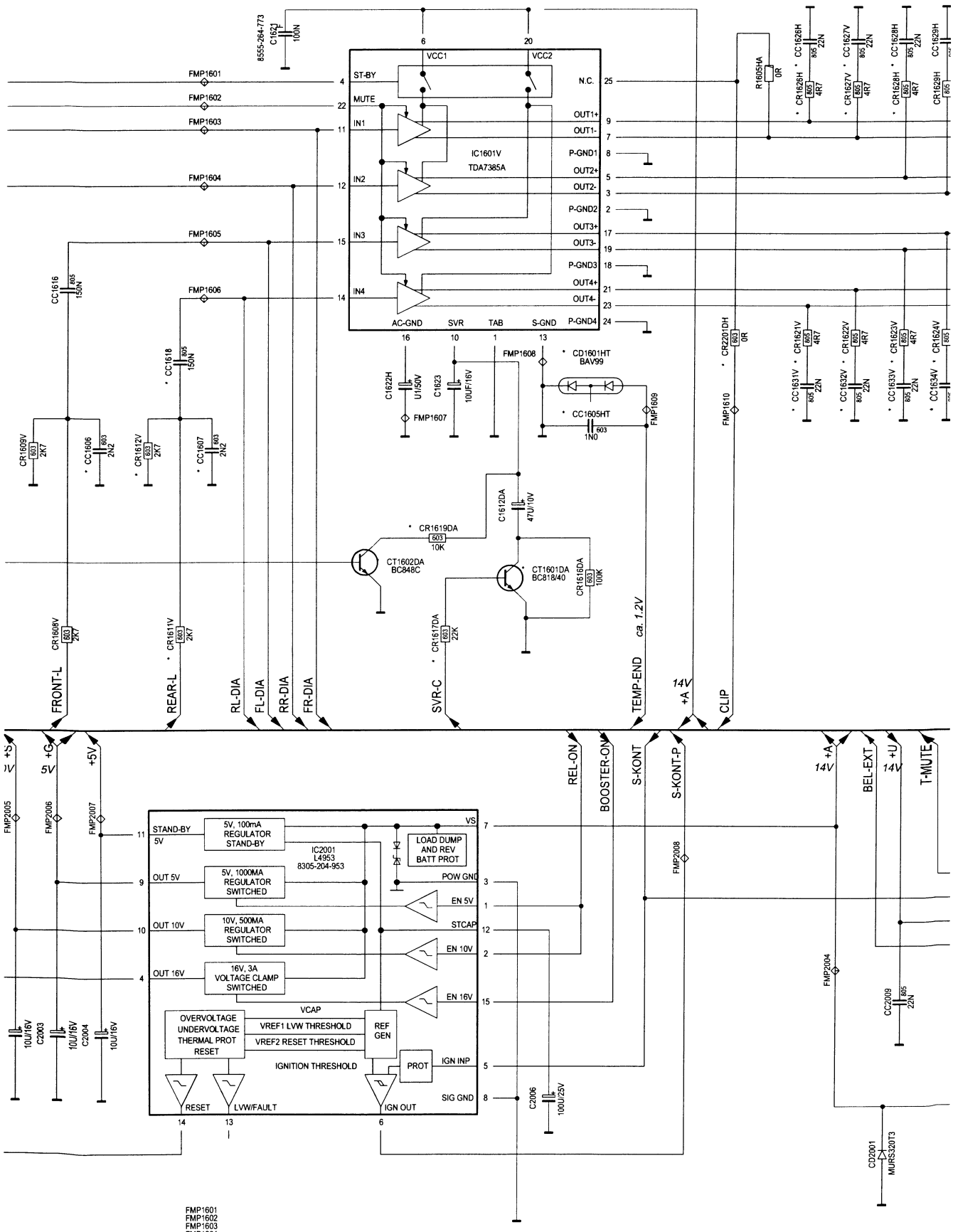
Endstufen-Teil / Amplifier Part

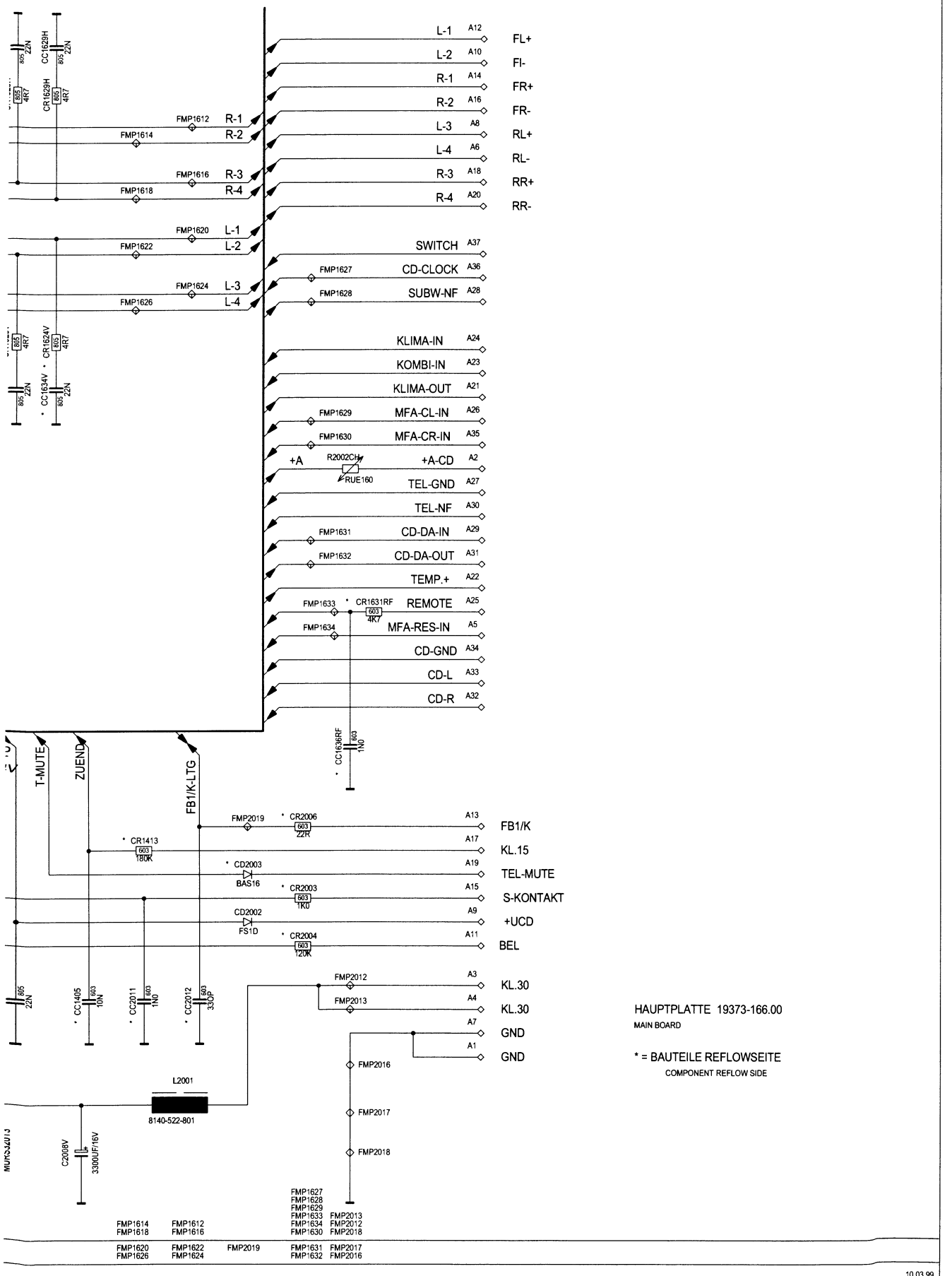


MESSPUNKTE ◇

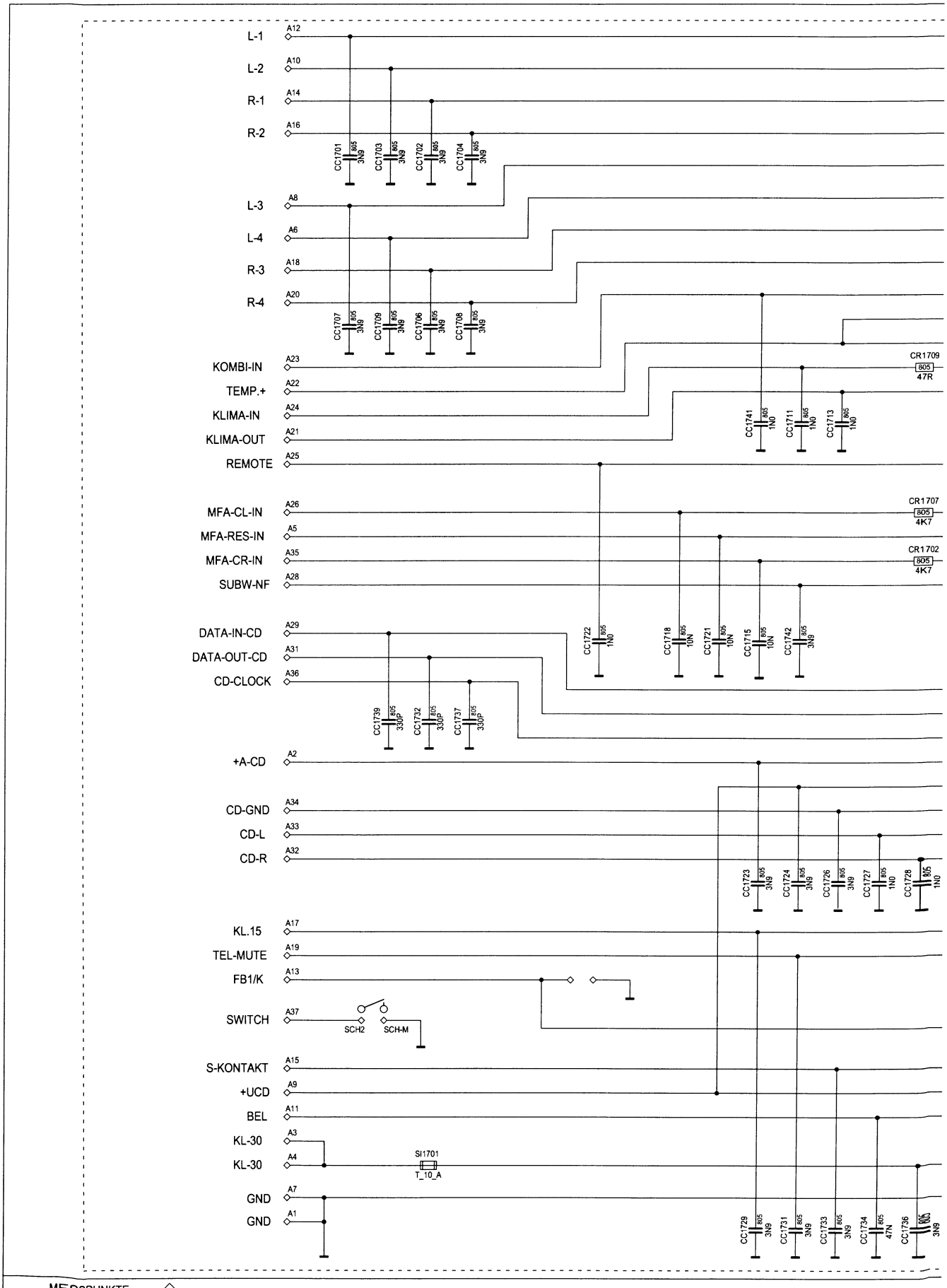
ABGLEICHPUNKTE ○

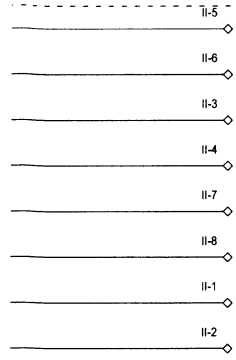

NUR BEI HIGH BC
ONLY HIGH BC
MFA-CL-P
MFA-CL-IN
MFA-RES-P
MFA-RES-IN
MFA-CR-P
MFA-CR-IN
+G
5V
AMP-ON
10V
+S
NF-MUTE
FRONT-R
REAR-R
+5V
+A
14V
KOMBI-IN
REAR-L
SUBW-NF
-RESET
+U
14V
KOMBI - INTERFACE
BCR135
CT1603DA
BCR148
CT916
BC858C
CT917
CT1681HS
BC848B
CT1682HS
BC858C
C1684HS
4U7/16V
CR1686HS
82K
CC1682HS
47N
FMP2009
FMP2003
FMP2005
FMP2

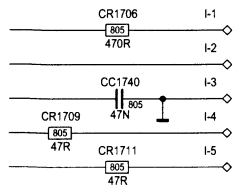

IC1601V
TDA7385A
VCC1
VCC2
ST-BY
MUTE
IN1
IN2
IN3
IN4
N.C.
OUT1+
OUT1-
OUT2+
OUT2-
OUT3+
OUT3-
OUT4+
OUT4-
P-GND1
P-GND2
P-GND3
P-GND4
AC-GND
SVR
TAB
S-GND
FMP1601
FMP1602
FMP1603
FMP1604
FMP1605
FMP1606
FMP1607
FMP1608
FMP1609
FMP1610
CD1601HT BAV99
CC1605HT 1N0
CT1602DA BC848C
CT1601DA BC818/40
CR1619DA 10K
CR1616DA 100K
CR1617DA 22K
C1612DA 47U/10V
C1622H U1/50V
C1623 10UF/16V
CR1608V 2K7
CR1609V 2K7
CR1611V 2K7
CR1612V 2K7
CC1606 2N2
CC1607 2N2
CC1616 150N
CC1618 150N
R1605HA 0R
CR2201DH 0R
FRONT-L
REAR-L
RL-DIA
FL-DIA
RR-DIA
FR-DIA
SVR-C
TEMP-END
ca. 1.2V
14V
+A
CLIP
REL-ON
BOOSTER-ON
S-KONT
S-KONT-P
BEL-EXT
+U
T-MUTE
+G
+5V
5V
STAND-BY
OUT 5V
OUT 10V
OUT 16V
5V, 100mA REGULATOR STAND-BY
5V, 1000MA REGULATOR SWITCHED
10V, 500MA REGULATOR SWITCHED
16V, 3A VOLTAGE CLAMP SWITCHED
IC2001 L4953 8305-204-953
LOAD DUMP AND REV BATT PROT
POW GND
EN 5V
STCAP
EN 10V
EN 16V
VCAP
OVERVOLTAGE
UNDERVOLTAGE
THERMAL PROT
RESET
VREF1 LVW THRESHOLD
VREF2 RESET THRESHOLD
REF GEN
IGNITION THRESHOLD
PROT
IGN INP
SIG GND
RESET
LVW/FAULT
IGN OUT
C2003 10U/16V
C2004 10U/16V
10U/16V
C2006 100U/25V
CC2009 22N
CD2001 MURS320T3
FMP2005
FMP2006
FMP2007
FMP2008
FMP2004

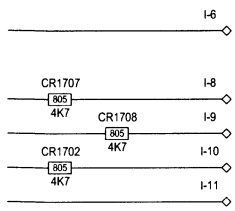

L-1 A12 FL+
L-2 A10 FL-
R-1 A14 FR+
R-2 A16 FR-
L-3 A8 RL+
L-4 A6 RL-
R-3 A18 RR+
R-4 A20 RR-
SWITCH A37
CD-CLOCK A36
SUBW-NF A28
KLIMA-IN A24
KOMBI-IN A23
KLIMA-OUT A21
MFA-CL-IN A26
MFA-CR-IN A35
+A-CD A2
TEL-GND A27
TEL-NF A30
CD-DA-IN A29
CD-DA-OUT A31
TEMP.+ A22
REMOTE A25
MFA-RES-IN A5
CD-GND A34
CD-L A33
CD-R A32
FMP1612 R-1
FMP1614 R-2
FMP1616 R-3
FMP1618 R-4
FMP1620 L-1
FMP1622 L-2
FMP1624 L-3
FMP1626 L-4
FMP1627
FMP1628
FMP1629
FMP1630
FMP1631
FMP1632
FMP1633
FMP1634
+A
R2002CH
RUE160
CR1631RF 603 4K7
CC1636RF 603 1N0
T-MUTE
ZUEND
FB1/K-LTG
FMP2019
CR2006 603 22R
FB1/K A13
CR1413 603 180K
KL.15 A17
CD2003 BAS16
TEL-MUTE A19
CR2003 603 1K0
S-KONTAKT A15
CD2002 FS1D
+UCD A9
CR2004 603 120K
BEL A11
FMP2012
FMP2013
KL.30 A3
KL.30 A4
GND A7
GND A1
FMP2016
FMP2017
FMP2018
L2001
8140-522-801
C2008V 3300UF/16V
CC1405 603 10N
CC2011 603 1N0
CC2012 603 330P
805 22N
FMP1614 FMP1618
FMP1612 FMP1616
FMP1620 FMP1626
FMP1622 FMP1624
FMP2019
FMP1627 FMP1628 FMP1629 FMP1633 FMP1634 FMP1630
FMP2013 FMP2012 FMP2018
FMP1631 FMP1632
FMP2017 FMP2016
HAUPTPLATTE 19373-166.00
MAIN BOARD
* = BAUTEILE REFLOWSEITE
COMPONENT REFLOW SIDE
10.03.99

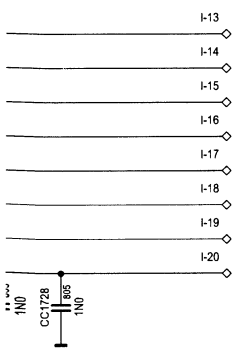
Anschlußplatte / Connection Board

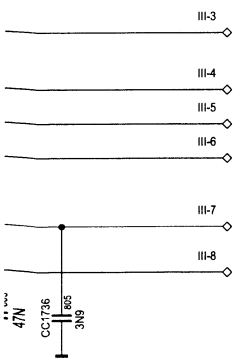








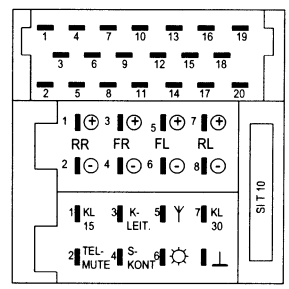




KAMMER I			
1	KOMBI-BUS	11	SUBWOOFER
2	TEMP.+	12	
3	TEMP.GND	13	DATA-IN-CD
4	KLIMA_BUS2 IN	14	DATA-OUT-CD
5	KLIMA-BUS1 OUT	15	CL-CD
6	REMOTE	16	+A-CD
7		17	+U-CD(SWITCHED)
8	MFA-SCHALTER1 LEFT	18	CD-NF-GND
9	MFA-SCHALTER2 RESET	19	CD-L-IN
10	MFA-SCHALTER3 RIGHT	20	CD-R-IN

KAMMER II		KAMMER III	
1	RR+	1	ZUENDUNG 15
2	RR-	2	TEL-MUTE
3	FR+	3	K-LEITUNG
4	FR-	4	S-KONTAKT
5	FL+	5	SWITCHED PLUS
6	FL-	6	ILLUMINATION CONTACT 58b
7	RL+	7	PLUS CONTACT 30
8	RL-	8	GROUND CONTACT 31

ANSCHLUSSGEHAUESE
CONNECTION TERMINAL



I = ZUSATZ-ANSCHLUESSE
I = ADDITIONAL CONNECTORS

II = LAUTSPRECHER-ANSCHLUESSE
II= LOUDSPEAKER CONNECTORS

III = VERSORGUNGS-ANSCHLUESSE
III = SUPPLY CONNECTORS

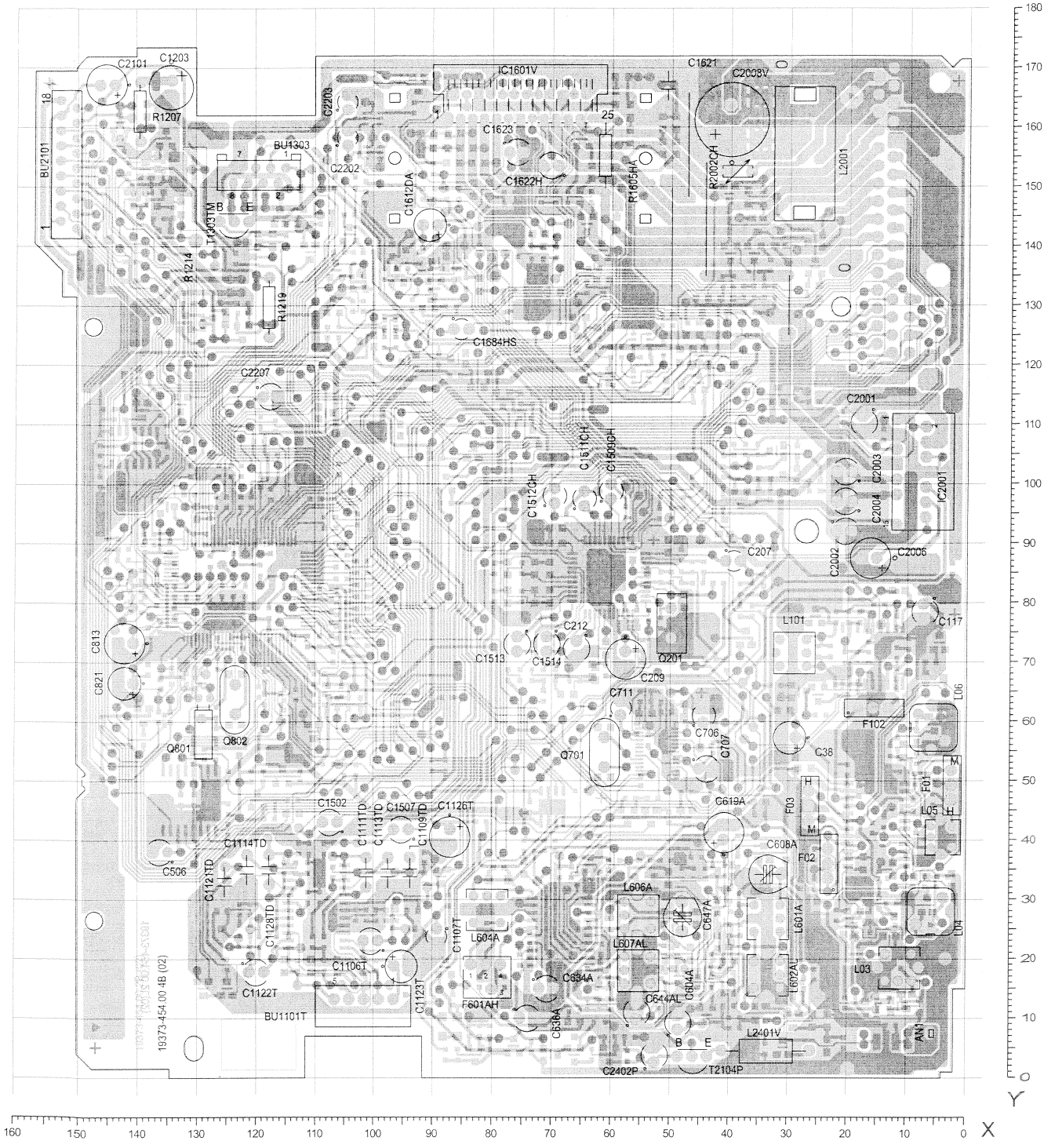
ANSCHLUSSPLATTE 19373-171.00
CONNECTION BOARD

* = BAUTEILE REFLOWSEITE
* = COMPONENTS REFLOW SIDE

10.03.99

Hauptplatte / Main Board

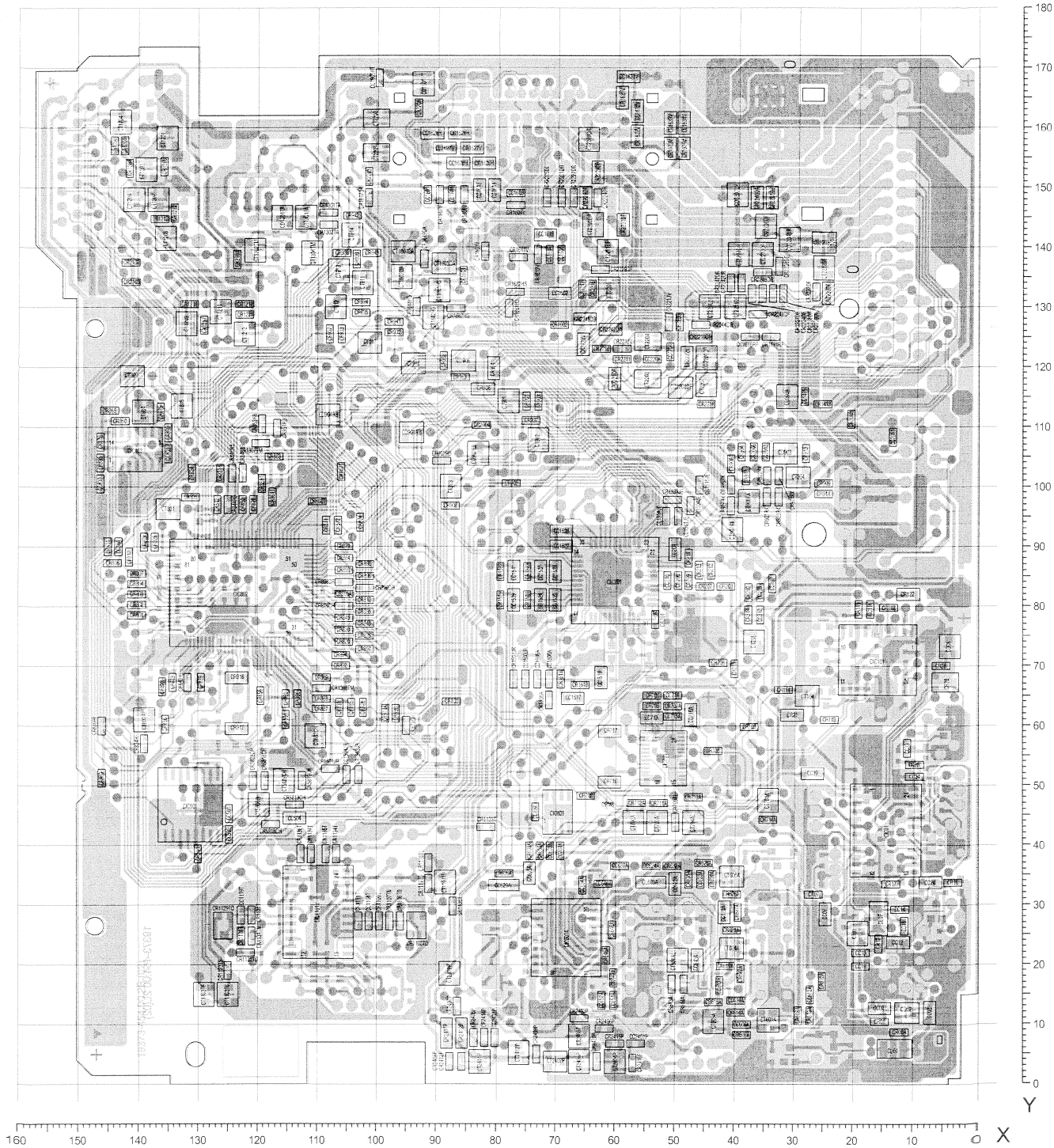
Bedrahtete Bauteile, Sicht auf Bestückungsseite / Wired Components, View on Component Side



Bauteil Component	X	Y
BU1101T	102	12
BU1303	120	152
BU2101	152	154
C38	30	57
C117	7	79
C207	39	87
C209	58	71
C212	66	72
C506	136	38
C604A	48	9
C608A	33	34
C619A	41	41
C634A	71	15
C636A	74	10
C644AL	56	11
C647A	48	27
C706	44	61
C707	44	52
C711	58	62
C813	142	73
C821	142	66
C1106T	100	23
C1107T	89	24
C1109TD	94	35
C1111TD	101	35
C1113TD	98	35
C1114TD	122	35
C1121TD	125	33
C1122T	120	18
C1123T	95	19
C1126T	87	41
C1128TD	118	35
C1203	134	167
C1502	108	43
C1507	95	42
C1509CH	60	99
C1511CH	65	98
C1512CH	69	98
C1513	76	73
C1514	71	73
C1612DA	91	143
C1621	51	167
C1622H	70	153
C1623	76	156
C1684HS	85	126
C2001	18	110
C2002	20	92
C2003	20	102
C2004	20	97
C2006	16	87
C2008V	40	161
C2101	145	167
C2202	105	158
C2203	105	164
C2207	117	115
C2402P	53	4
F01	2	49
F02	23	36
F03	26	46
F102	15	62
F601AH	81	17
IC1601V	76	166
IC2001	8	102
L03	11	18
L04	6	28
L05	4	41
L06	6	59
L101	29	71
L601A	33	27
L602AL	33	17
L604A	81	28
L606A	55	27
L607AL	55	18
L2001	28	156
L2401V	33	4
Q201	50	77
Q701	61	55
Q801	129	59
Q802	124	64
R1207	140	163
R1214	130	150
R1219	118	130
R1605HA	61	155
R2002CH	39	152
T1303TM	124	143
T2104P	46	3

Hauptplatte / Main Board

SMD-Bauteile, Sicht auf Bestückungsseite / SMD Components, View on Component Side



Für die tatsächliche Bauteilbestückung ist das Schaltbild maßgebend!
The circuit diagram is relevant for the actual component assembly!

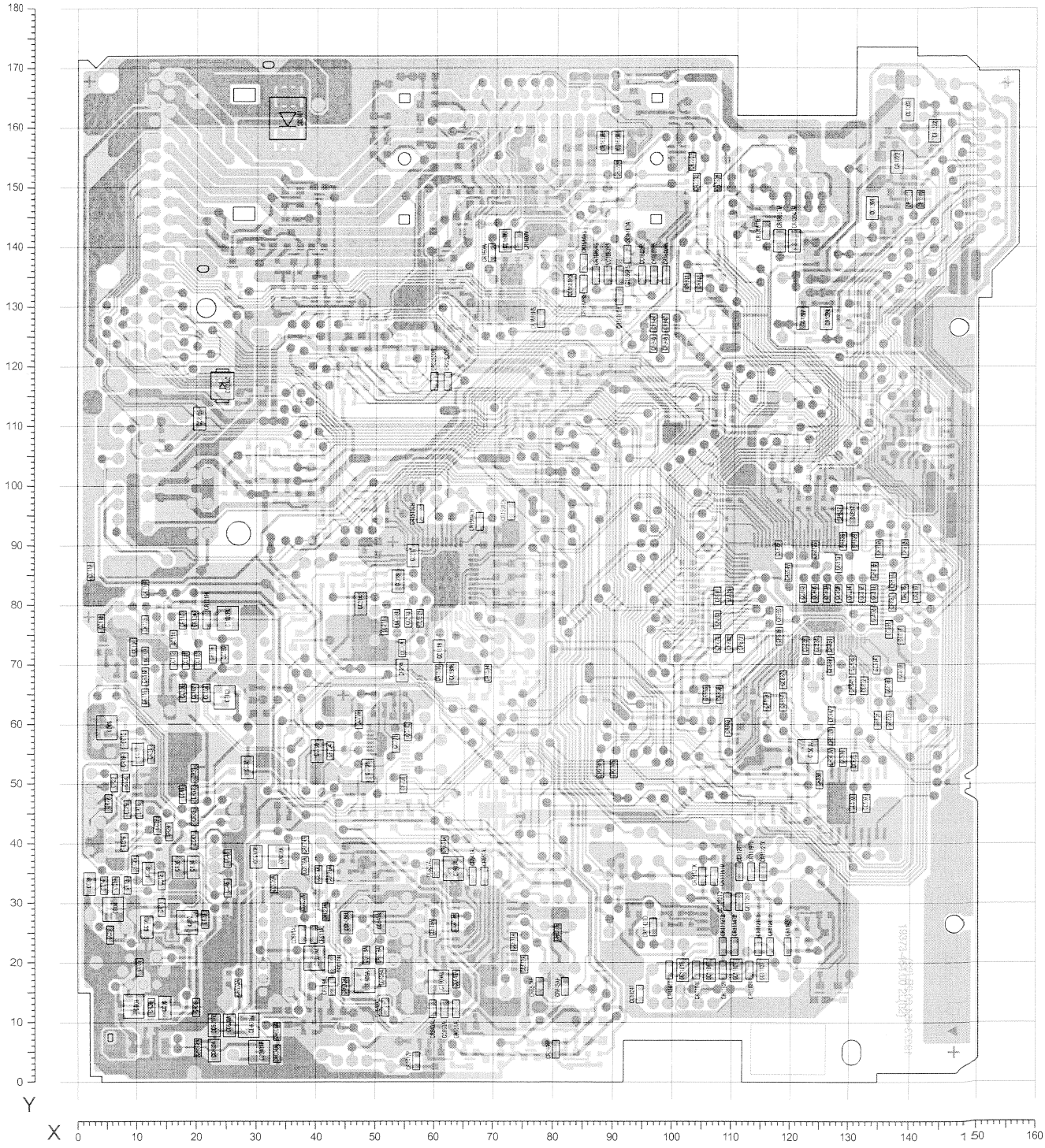
Hauptplatte / Main Board

Koordinaten der SMD-Bauteile auf der Bestückungsseite / Coordinates of the SMD Components on the Component Side

Bauteil Component	X	Y
CC02	7	12
CC04	15	13
CC07	25	28
CC11	19	20
CC12	13	24
CC13	19	22
CC14	12	29
CC16	11	26
CC24	7	34
CC33	11	56
CC34	10	51
CC36	10	54
CC39	27	52
CC116	18	79
CC202	34	84
CC203	36	82
CC204	50	90
CC216	52	84
CC312	36	79
CC501	125	45
CC502	125	42
CC504	114	45
CC606A	39	10
CC612A	27	15
CC613A	43	16
CC614A	40	14
CC622A	50	34
CC623A	46	34
CC624A	54	36
CC628A	42	29
CC629A	79	33
CC633A	71	39
CC635A	74	35
CC637A	59	36
CC643AL	46	21
CC646A	62	34
CC651A	60	14
CC652A	62	14
CC654A	65	33
CC704A	69	39
CC713	54	61
CC714	51	65
CC715A	51	62
CC716A	48	62
CC804	143	90
CC807	73	46
CC831	146	101
CC832	135	106
CC1108T	101	27
CC1119T	123	28
CC1405	29	115
CC1501JE	50	95
CC1503JR	75	68
CC1504JR	105	52
CC1505A	73	68
CC1506A	71	68
CC1508JE	52	95
CC1517	67	65
CC1519	63	68
CC1522	70	81
CC1524	73	81
CC1526	69	92
CC1527	69	90
CC1528	70	86
CC1531	73	86
CC1539	77	81
CC1541	77	86
CC1601	92	149
CC1602	70	132
CC1603	77	149
CC1604	88	149
CC1605HT	100	168
CC1606	69	139
CC1607	72	139
CC1611	81	150
CC1613	83	150
CC1618	72	142
CC1626H	87	154
CC1627V	89	157
CC1628H	91	159
CC1631V	58	168
CC1632V	57	163
CC1633V	52	161
CC1634V	49	161
CC1636RF	38	125
CC2011	14	108
CC2012	35	106
CC2204	51	123
CC2206	54	121
CC2401P	57	7
CC2403P	80	8
CD02	11	12
CD06	4	73
CD901RB	94	109
CD902RB	83	106
CD903	32	106
CD904RB	108	112
CD906	86	121
CD1301TA	116	145
CD1601HT	93	167
CD2003	32	115
CD2201DR	45	121
CD2202DF	49	117
CD2203DF	26	141
CD2204DR	32	141
CD2206DF	35	143
CD2207DR	40	149
CIC01	15	42
CIC101	16	71
CIC201	60	84
CIC501	131	47
CIC601A	68	25
CIC701	52	55
CIC801	70	46
CIC802	123	82
CIC803	141	106
CIC1101V	110	29
CL01	13	6
CL02	16	28
CL603A	54	34
CR01	15	11
CR06A	12	9
CR07	27	32
CR12	16	23
CR16	4	34
CR17	14	34
CR26	5	67
CR27	30	62
CR28	6	70
CR113	24	61
CR114	32	66
CR118	15	80
CR119	20	79
CR122	11	82
CR201	53	78
CR202	38	82
CR203	42	83
CR206	50	84
CR207	45	83
CR208	43	71
CR209	48	84
CR211	40	70
CR212	44	86
CR213	46	86
CR214	48	88
CR314	38	79
CR501	130	39
CR607A	39	8
CR608A	29	12
CR612A	25	17
CR613A	27	12
CR614A	40	12
CR618A	43	14
CR619A	42	20
CR621A	41	26
CR622A	39	18
CR626A	41	32
CR627A	40	29
CR628A	45	37
CR629A	44	34
CR631A	48	34
CR632A	51	36
CR636A	79	35
CR638A	74	39
CR643AL	51	17
CR644AL	48	17
CR646A	61	26
CR647A	60	18
CR648A	62	21
CR653A	73	39
CR702	65	48
CR703	38	60
CR705	54	65
CR706	54	63
CR707A	51	63
CR708	44	56
CR709AL	50	44
CR711A	53	47
CR712A	57	47
CR713A	47	48
CR714A	35	44
CR716	61	51
CR717	61	59
CR801	140	79
CR802	140	80
CR803	140	82
CR804	140	84
CR805A	106	82
CR806	144	87
CR807	140	86
CR810	102	81
CR811	145	90
CR812	142	88
CR815CH	106	80
CR820	106	74
CR822	136	66
CR824	131	102
CR825	102	75
CR826	121	97
CR830	106	76
CR831	106	63
CR832	88	64
CR833	134	67
CR834RF	139	57
CR835	131	98
CR836RF	146	60
CR838	135	60
CR839	130	67
CR840	102	77
CR842	127	97
CR843RF	132	67
CR844RB	125	97
CR845	106	78
CR846RB	124	102
CR848RB	123	102
CR853	123	97
CR855	102	79
CR856	119	65
CR858T	119	101
CR860	143	111
CR861T	117	98
CR862	115	65
CR863	146	51
CR864	115	61
CR865	145	113
CR866	113	65
CR867T	106	102
CR868T	110	98
CR870	146	108
CR871	108	93
CR872	107	93
CR873CH	95	60
CR874	103	94
CR875	136	112
CR878	102	63
CR879	106	90
CR880	135	109
CR883	117	105
CR884	106	88
CR885	104	63
CR886	102	87
CR887	109	63
CR888	109	65
CR889	109	68
CR890	97	62
CR892	106	70
CR893	106	86
CR894	106	72
CR895	146	104
CR896	102	85
CR897	102	73
CR898DF	106	84
CR899DR	102	83
CR901	75	114
CR902	78	101
CR903	73	114
CR904	39	106
CR906	41	104
CR907	74	111
CR908	88	97
CR909	25	101
CR911	25	99
CR912	38	102
CR913	28	106
CR914A	98	62
CR916	124	68
CR917	124	60
CR921RK	35	98
CR922RK	35	102
CR923RK	33	98
CR924RK	33	102
CR926RK	41	100
CR927RK	41	97
CR928	137	91
CR929	139	91
CR932	97	126
CR933	106	126
CR934	103	131
CR935	103	129
CR936	83	116
CR938	106	139
CR939	103	138
CR941	97	127
CR942	104	145
CR943	101	139
CR951RB	117	110
CR952RB	89	104
CR953RB	119	110
CR957	108	126
CR962	89	121
CR963	86	118
CR964	81	120
CR1106TD	96	27
CR1107TN	98	27
CR1108TD	93	26
CR1109T	99	27
CR1111T	103	27
CR1117TD	91	34
CR1118TL	91	37
CR1123TS	125	19
CR1127T	121	28
CR1128T	123	25
CR1129TD	126	26
CR1131TN	121	25
CR1132TD	122	22
CR1133T	82	43
CR1134T	107	39
CR1135T	108	39
CR1136T	113	39
CR1137T	111	39
CR1138T	87	30
CR1201	142	157
CR1202	144	157
CR1204	142	153
CR1205	136	153
CR1212	134	146
CR1213	136	145
CR1216	132	131
CR1217	129	127
CR1218	122	131
CR1221	122	129
CR1301TA	108	146
CR1302TA	108	144
CR1307TM	119	107
CR1308TM	109	66
CR1413	26	114
CR1501JR	108	53
CR1502JR	77	68
CR1503JR	103	52
CR1504JE	48	97
CR1506A	71	64
CR1515JE	46	100
CR1517	69	68
CR1518	66	67
CR1519	80	81
CR1521	75	81
CR1522	80	86
CR1523	75	86
CR1533JE	51	98
CR1601	86	135
CR1602	70	127
CR1603V	82	139
CR1604V	77	147
CR1606V	86	149
CR1607V	90	149
CR1611V	77	138
CR1612V	73	139
CR1617DA	101	148
CR1619DA	92	138
CR1621V	59	165
CR1622V	57	159
CR1623V	52	157
CR1624V	49	157
CR1626H	83	154
CR1627V	84	157
CR1628H	86	159
CR1631RF	35	125
CR1681HS	78	130
CR1682HS	77	133
CR1687HS	87	130
CR1688HS	94	130
CR2003	21	111
CR2004	83	110
CR2006	37	106
CR2101	124	138
CR2102	141	137
CR2103	141	134
CR2201DH	69	148
CR2203	101	152
CR2205DL	72	148
CR2208	93	163
CR2209	50	127
CR2211	59	121
CR2212V	59	123
CR2213V	52	127
CR2214	126	102
CR2215	63	123
CR2216	64	133
CR2217	66	133
CR2218	45	114
CR2219DR	46	125
CR2221DR	61	118
CR2222V	48	121
CR2223V	66	124
CR2224DR	63	148
CR2226DR	65	148
CR2227DR	68	148
CR2228DR	63	152
CR2229DF	63	136
CR2231DF	59	144
CR2232DF	27	133
CR2233DF	25	132
CR2234DF	36	132
CR2236DF	34	132
CR2237DF	38	132
CR2238DF	33	137
CR2239DF	33	132
CR2241DF	37	129
CR2242DR	41	134
CR2243DR	40	134
CR2244DR	46	127
CR2246DR	36	136
CR2247DA	61	126
CR2248DB	65	128
CR2249DA	37	148
CR2251DB	35	148
CR2403P	66	11
CR2405P	84	8
CR2406P	62	9
CR2407P	86	13
CR2408P	88	4
CR2409P	73	5
CR2411P	88	8
CR2412P	86	8
CR2413P	86	4
CR2414P	82	8
CR2415P	60	7
CR2416P	57	3
CR2420P	63	4
CR5813CH	114	47
CR5816CH	119	51
CR5818CH	118	44
CR5819CH	113	51
CR5822CH	121	51
CT01	19	25
CT104	28	65
CT201	37	74
CT601A	34	11
CT603A	43	11
CT604A	41	23
CT606A	41	35
CT608AL	49	21
CT701A	35	47
CT702A	57	44
CT703AL	53	44
CT704AL	47	44
CT801	135	96
CT802RF	139	61
CT803CH	110	58
CT804	139	112
CT805	133	113
CT809	141	118
CT901	78	114
CT902	73	108
CT903	88	100
CT904	30	101
CT906RK	38	98
CT907RK	41	93
CT911	102	134
CT912	107	130
CT913	107	136
CT914	104	142
CT916	94	120
CT917	101	124
CT1101TD	89	34
CT1102TS	125	15
CT1103TS	129	15
CT1201	135	158
CT1203	139	153
CT1204	143	161
CT1206	141	148
CT1207	137	148
CT1208	135	142
CT1209	132	127
CT1211	126	129
CT1212	122	126
CT1301TA	112	145
CT1302TM	120	140
CT1304TM	111	139
CT1601DA	96	139
CT1602DA	96	135
CT1603DA	89	137
CT1681HS	90	133
CT1682HS	91	128
CT2201	100	156
CT2202	100	161
CT2203	55	118
CT2204	55	124
CT2206	62	133
CT2207	45	117
CT2208DR	64	144
CT2209DR	65	158
CT2211DF	62	139
CT2212DF	26	136
CT2213DF	36	139
CT2214DF	41	130
CT2216DR	45	130
CT2217DR	40	139
CT2404P	60	4
CT2406P	66	4
CT2407P	70	4
CT2408P	66	8
CT2409P	88	18
CT2411P	83	4
CT2412P	76	5
CT5806CH	120	47
CT5807CH	116	51

Hauptplatte / Main Board

SMD-Bauteile, Sicht auf Lötseite / SMD Components, View on Solder Side



Für die tatsächliche Bauteilbestückung ist das Schaltbild maßgebend!

The circuit diagram is relevant for the actual component assembly!

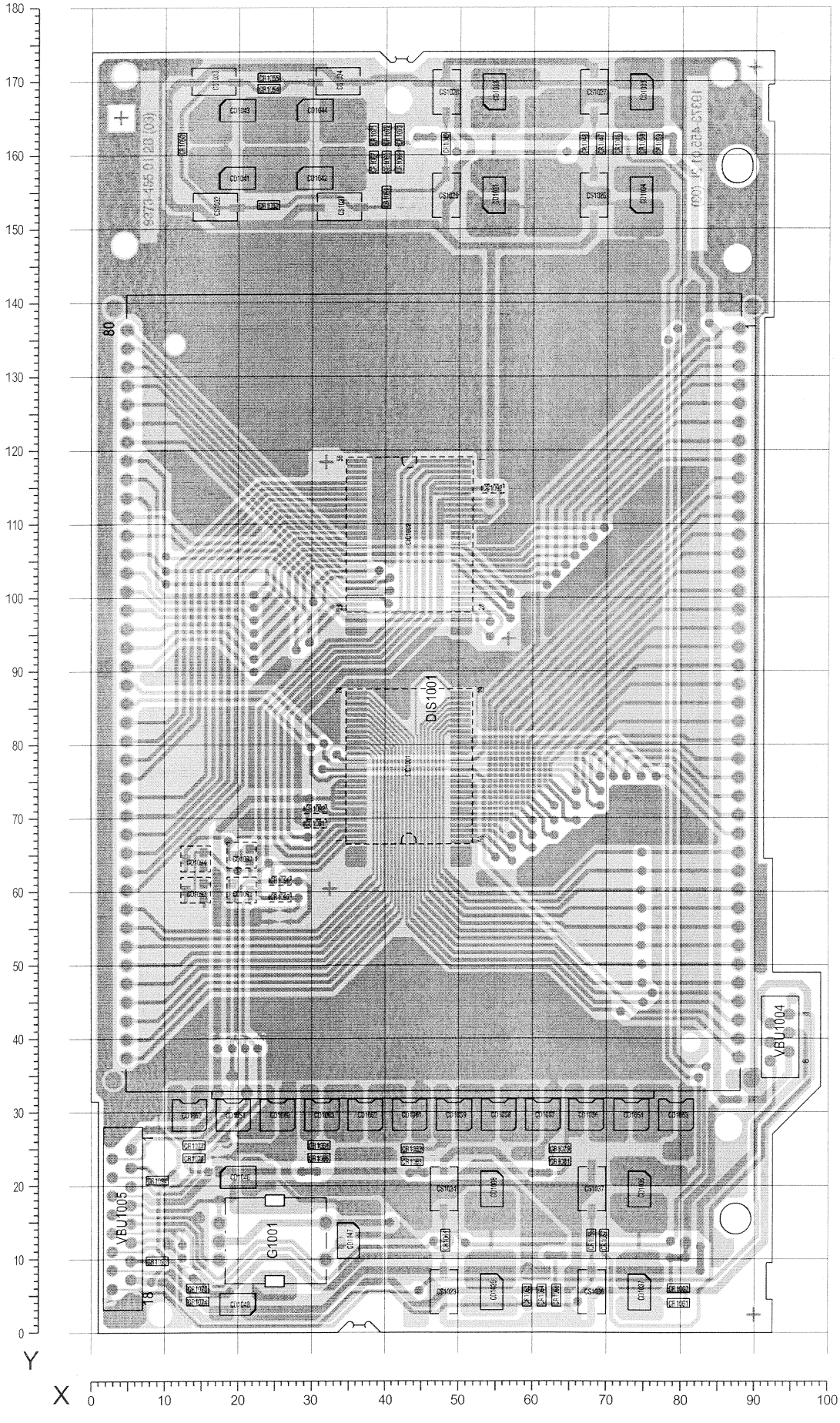
Hauptplatte / Main Board

Koordinaten der SMD-Bauteile auf der Lötseite / Coordinates of the SMD Components on the Solder Side

Bauteil Component	X	Y
CC08	15	13
CC09	10	19
CC17	12	26
CC18	2	33
CC19	7	33
CC21	6	25
CC22	12	35
CC23	10	36
CC26	8	50
CC27	14	43
CC28	8	40
CC29	9	46
CC31	10	55
CC32	8	58
CC37	28	53
CC41	18	48
CC42	14	34
CC43	20	41
CC44	25	37
CC46	25	33
CC103	11	71
CC104	10	73
CC106	18	65
CC107	20	65
CC108	22	65
CC109	25	72
CC111	18	71
CC112	16	71
CC113	20	71
CC114	16	74
CC118	4	77
CC119	2	86
CC201	53	78
CC208	54	73
CC211	52	77
CC213	56	78
CC214	48	80
CC217	56	88
CC219	54	84
CC503	131	47
CC507	133	47
CC509	129	55
CC601FZ	23	9
CC602A	23	5
CC603A	25	9
CC607A	38	30
CC609A	33	33
CC611AL	38	25
CC616A	38	36
CC617A	30	38
CC618A	41	35
CC621A	43	35
CC626A	51	18
CC627AL	60	36
CC631A	73	23
CC632A	75	20
CC638A	48	21
CC639A	63	27
CC641A	51	27
CC642AL	45	27
CC648A	60	26
CC649A	64	17
CC653AL	62	12
CC701	53	57
CC705	40	56
CC708	49	52
CC709	47	61
CC712	56	59
CC801	136	76
CC802	134	78
CC803	122	82
CC806	124	82
CC808	128	82
CC809	126	82
CC811	134	82
CC812	132	82
CC814	134	70
CC816	136	66
CC817	130	95
CC818	138	75
CC819	138	69
CC822	132	66
CC823	130	70
CC824	124	73
CC825	131	54
CC826	122	73
CC827	118	67
CC828	109	82
CC829	117	89
CC1101T	102	19
CC1102T	111	19
CC1103T	115	19
CC1104T	106	19
CC1112TD	109	30
CC1124T	94	15
CC1127TD	111	35
CC1202	139	163
CC1204	133	146
CC1207	121	128
CC1516	63	69
CC1518	61	72
CC1521	58	78
CC1616	72	141
CC1629H	90	158
CC1681HS	82	134
CC1682HS	94	135
CC1683HS	89	135
CC1686HS	91	135
CC2009	20	111
CD03	10	13
CD04	6	29
CD05	5	60
CD601FZ	29	9
CD602A	34	38
CD603A	48	17
CD2001	35	161
CD2002	24	117
CD2401P	30	5
CR08	20	13
CR09	13	13
CR11	14	29
CR13	9	33
CR14	5	33
CR18	10	46
CR19	8	54
CR21	13	55
CR22	5	47
CR23	6	50
CR24	15	42
CR31	20	52
CR32	20	45
CR33	22	27
CR34	20	36
CR36	17	36
CR37	20	48
CR111	11	65
CR112	11	68
CR116	23	72
CR117	18	77
CR121FK	22	77
CR123	11	77
CR124	20	77
CR204	54	69
CR502V	127	58
CR503V	127	55
CR602A	20	6
CR603A	27	16
CR604A	33	5
CR606A	33	8
CR611AL	40	25
CR616AL	43	16
CR617AL	43	20
CR623A	42	28
CR624A	38	40
CR633A	45	16
CR634A	62	40
CR637A	81	25
CR639A	51	21
CR641AL	67	35
CR642AL	52	13
CR645AH	82	16
CR649AL	60	12
CR651AL	64	12
CR652AL	69	35
CR654AH	78	16
CR701	55	50
CR704	43	56
CR715F	11	83
CR808	108	65
CR809	118	75
CR813	128	87
CR814	130	82
CR816	134	86
CR817	137	84
CR818	139	82
CR819	141	82
CR821	137	81
CR823	136	61
CR827	128	95
CR828	128	91
CR829	131	91
CR837	134	61
CR841	130	66
CR847	127	62
CR849	126	70
CR850	125	51
CR851	126	73
CR852V	124	89
CR854V	119	86
CR857	118	64
CR859	116	64
CR869	109	60
CR876	107	74
CR877	111	74
CR881	107	77
CR882	109	74
CR891	107	82
CR918	139	90
CR919	134	90
CR931	102	134
CR937	104	134
CR944	96	127
CR946	96	124
CR947	98	127
CR948	98	124
CR965	106	65
CR966	118	78
CR1101T	99	19
CR1102T	108	19
CR1103T	113	19
CR1104T	104	19
CR1112TD	108	23
CR1113TK	105	35
CR1114TD	110	23
CR1116TD	107	35
CR1119TD	113	35
CR1121TD	115	23
CR1122TK	115	35
CR1124TD	117	23
CR1126T	111	30
CR1142TD	97	26
CR1143TD	119	23
CR1209	141	148
CR1211	139	148
CR1222	143	160
CR1223	137	154
CR1224	125	128
CR1303TM	117	141
CR1304TM	120	141
CR1306TM	115	143
CR1508CH	73	96
CR1509CH	68	94
CR1511CH	58	95
CR1514	69	69
CR1516	61	69
CR1608V	74	141
CR1609V	69	139
CR1610DA	91	132
CR1616DA	92	139
CR1629H	88	158
CR1683HS	84	134
CR1684HS	84	137
CR1686HS	86	135
CR1689HS	96	135
CR1690HS	98	135
CR1691HS	78	128
CR2001	88	52
CR2005	90	52
CR2202	103	151
CR2204	90	153
CR2206	107	151
CR2207	102	154
CR2252DR	60	118
CR2253DF	62	118
CR2404P	81	6
CR2417P	57	3
CT02	19	27
CT102FK	25	78
CT103	25	65
CT501V	123	56
CT602AL	40	21
CT607AL	63	36
CT609AL	61	17

Displayplatte / Display Board

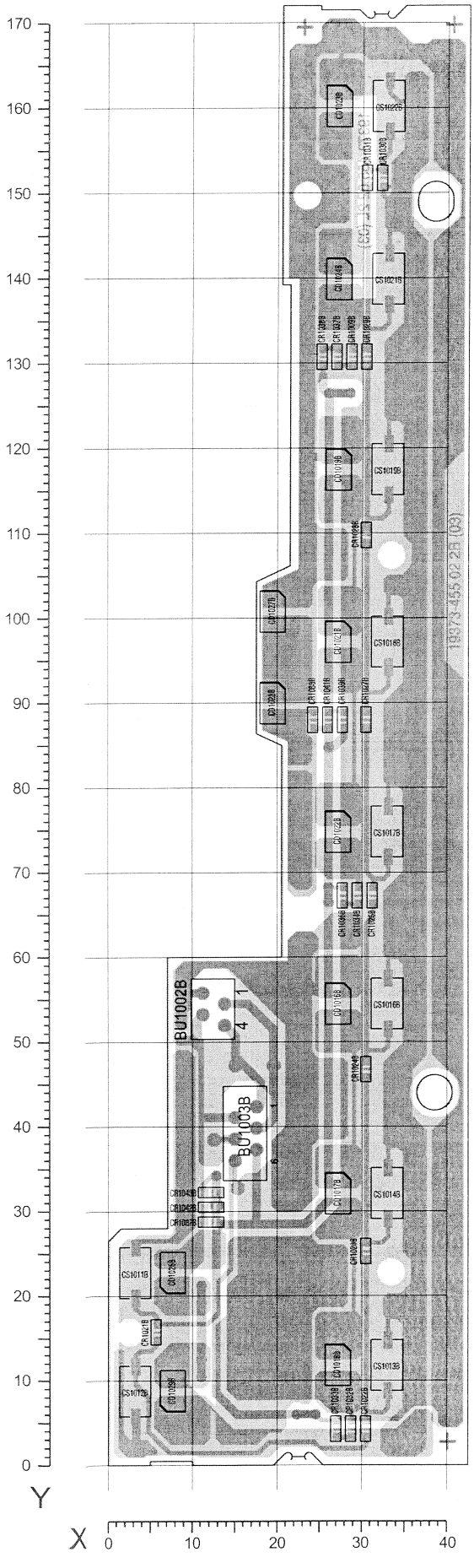
Sicht auf Bestückungsseite / View on Component Side



Bauteil Component	X	Y
CC1091	31	69
CC1092	55	115
CD1031	54	154
CD1032	54	169
CD1033	74	169
CD1034	74	154
CD1036	74	19
CD1037	74	5
CD1038	54	19
CD1039	54	5
CD1041	19	157
CD1042	30	157
CD1043	19	166
CD1044	30	166
CD1046	19	21
CD1047	35	12
CD1048	19	4
CD1049	25	30
CD1051	19	30
CD1052	13	30
CD1053	79	30
CD1054	73	30
CD1056	67	30
CD1057	61	30
CD1058	55	30
CD1059	49	30
CD1061	43	30
CD1062	37	30
CD1063	31	30
CD1091	21	60
CD1092	15	60
CD1093	21	65
CD1094	15	65
CIC1001	44	77
CIC1002	44	109
CR1044	48	12
CR1046	71	162
CR1047	68	162
CR1048	66	162
CR1049	47	162
CR1051	39	154
CR1052	23	153
CR1053	12	162
CR1054	23	169
CR1055	23	170
CR1056	67	12
CR1057	69	12
CR1058	74	162
CR1059	76	162
CR1061	79	4
CR1062	79	6
CR1063	59	5
CR1064	61	5
CR1065	63	5
CR1067	38	159
CR1068	39	159
CR1069	41	159
CR1071	38	163
CR1072	39	163
CR1073	41	163
CR1074	14	4
CR1075	14	6
CR1077	13	26
CR1078	13	24
CR1079	63	25
CR1081	63	23
CR1082	43	25
CR1083	43	23
CR1084	30	26
CR1086	30	24
CR1092	31	71
CR1093	9	10
CR1094	9	21
CR1096	26	61
CR1097	26	59
CS1021	48	5
CS1024	48	19
CS1026	68	154
CS1027	68	169
CS1028	48	169
CS1029	48	154
CS1031	33	153
CS1032	16	153
CS1033	16	170
CS1034	33	170
CS1035	68	5
CS1037	68	19
DIS1001	46	86
G1001	24	12
VBU1004	93	40
VBU1005	4	16

Bedienplatte Radio / Operating Board Radio

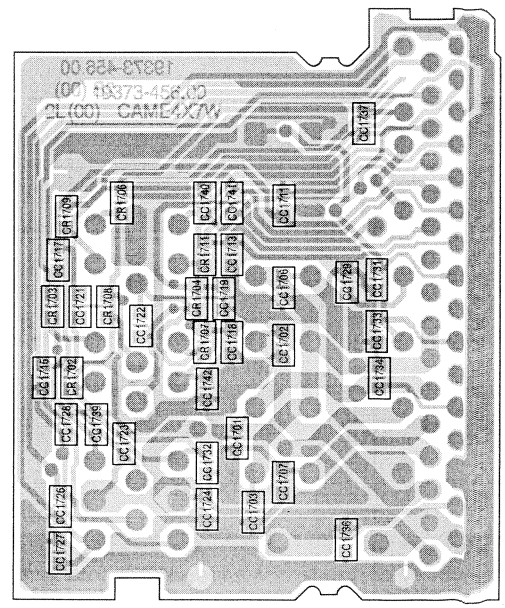
Sicht auf Bestückungsseite / View on Component Side



Bauteil Component	X	Y
BU1002B	12	54
BU1003B	16	39
CD1016B	27	54
CD1017B	27	32
CD1018B	27	12
CD1019B	27	117
CD1021B	27	97
CD1022B	27	75
CD1023B	27	160
CD1024B	27	140
CD1026B	8	23
CD1027B	19	101
CD1028B	19	90
CD1029B	8	9
CR1009B	28	131
CR1021B	5	16
CR1022B	30	4
CR1023B	30	25
CR1024B	30	47
CR1026B	31	67
CR1027B	30	88
CR1028B	30	110
CR1029B	30	131
CR1030B	32	152
CR1031B	30	152
CR1032B	28	4
CR1033B	27	4
CR1034B	29	67
CR1036B	28	67
CR1037B	27	131
CR1038B	25	131
CR1039B	28	88
CR1041B	26	88
CR1042B	12	30
CR1043B	12	32
CR1087B	12	29
CR1088B	24	88
CS1011B	3	23
CS1012B	3	9
CS1013B	33	12
CS1014B	33	32
CS1016B	33	54
CS1017B	33	75
CS1018B	33	97
CS1019B	33	117
CS1021B	33	140
CS1022B	33	160

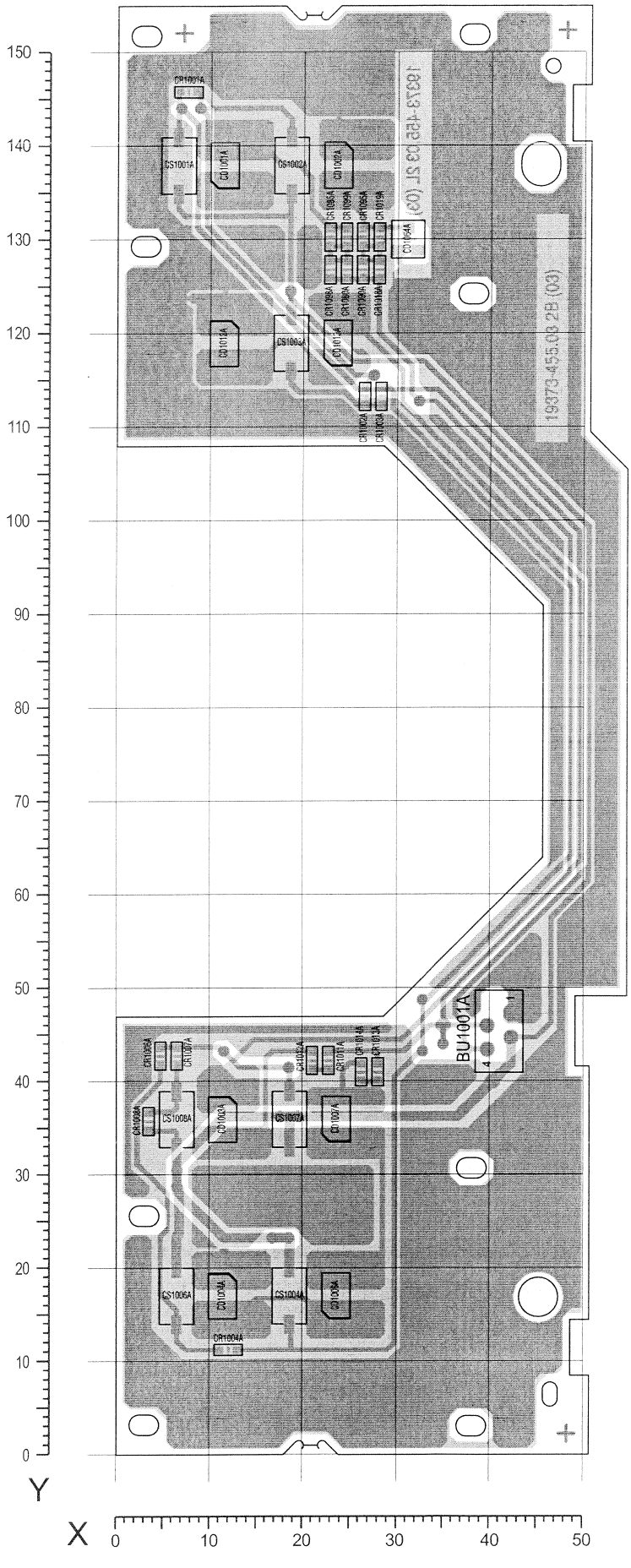
Anschlußplatte / Connection Board

Sicht auf Lötseite / View on Solder Side



Bedienplatte Klima / Operating Board Climate

Sicht auf Bestückungsseite / View on Component Side

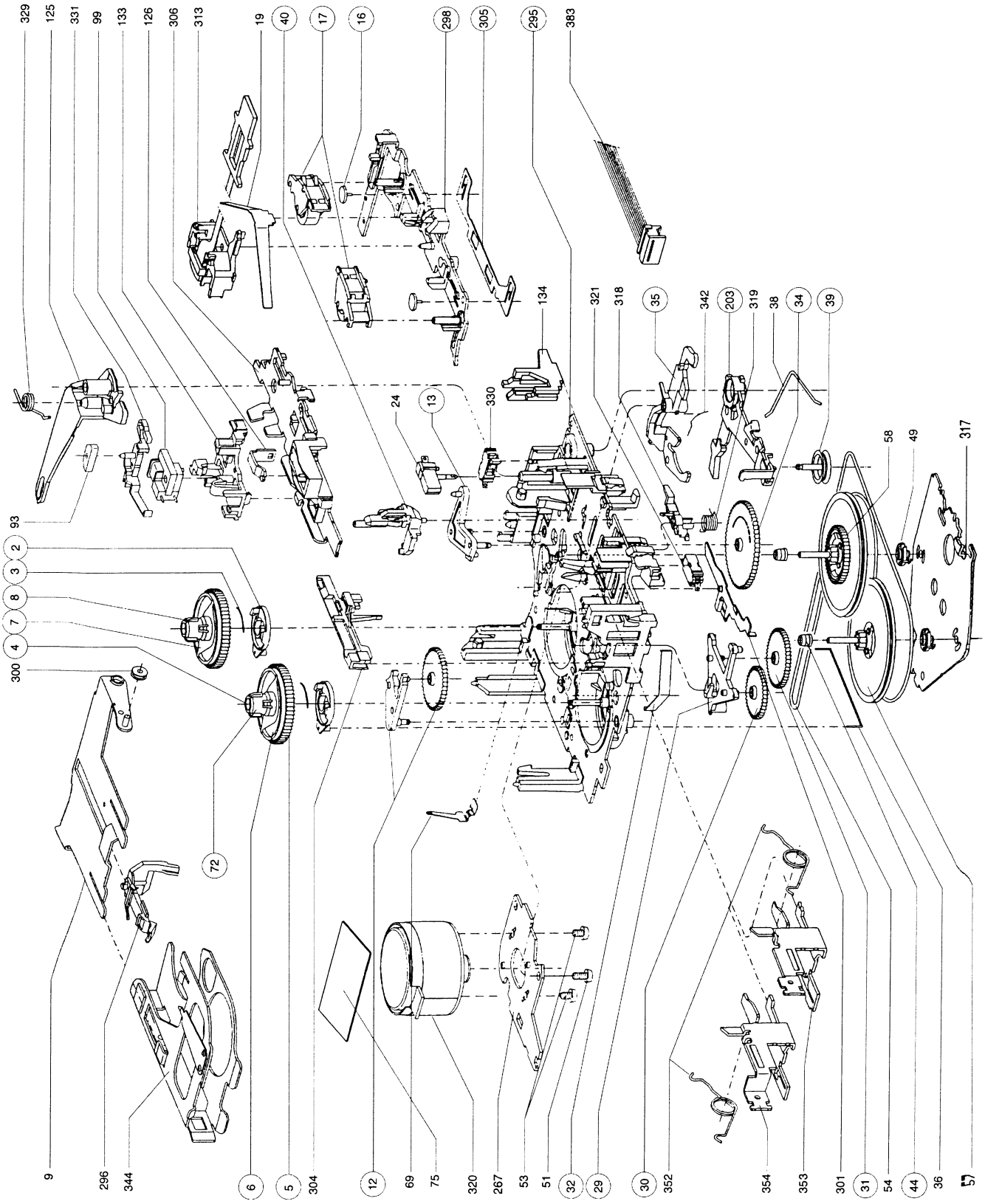


Bauteil Component	X	Y
BU1001A	41	45
CD1001A	11	138
CD1002A	23	138
CD1003A	11	36
CD1004A	11	17
CD1006A	23	17
CD1007A	23	36
CD1012A	11	119
CD1013A	23	119
CD1064A	31	130
CR1001A	7	146
CR1002A	26	113
CR1003A	28	113
CR1004A	12	11
CR1006A	4	43
CR1007A	6	43
CR1008A	3	36
CR1011A	22	42
CR1012A	20	42
CR1013A	28	41
CR1014A	26	41
CR1018A	28	127
CR1019A	28	130
CR1080A	24	127
CR1085A	22	130
CR1090A	26	127
CR1095A	26	130
CR1098A	22	127
CR1099A	24	130
CS1001A	6	138
CS1002A	18	138
CS1003A	18	119
CS1004A	18	17
CS1006A	6	17
CS1007A	18	36
CS1008A	6	36

Ersatzteillisten und Explosionszeichnungen / Spare Parts Lists and Exploded Views

Explosionszeichnung Laufwerk / Exploded View Tape Drive

1



GRUNDIG

Ersatzteilliste
Spare Parts List

CAR AUDIO

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LCA 3-3/2

MATERIAL-NR. / PART NO.: 19723 046 0000

POS. NR. POS. NO.	ABB. FIG.	MATERIAL-NR. PART NUMBER	ANZ. QTY.	BEZEICHNUNG (D)	DESCRIPTION (GB)
		19723 046 0000		LAUFWERK LCA 3-3/2 KEIN E-TEIL	DRIVE MECHANISM LCA 3-3/2 NO SPARE PART
0008.000	1	72008 631 5000		WICKELTELLER KPL.	REEL CPL
0009.000	1	72008 631 1700		CASSETTENLIFT KPL.	CASSETTENLIFT CPL.
0012.000	1	72008 631 6500		HEBEL (REV.) + RAD	LEVER + WHEEL
0013.000	1	72008 631 7400		HEBEL + STEUERSCHEIBE	LEVER + CONTROL WASHER
0017.000	1	72008 398 0700		A.R. HEBEL KPL.	AR-LEVER CPL.
0019.000	1	72008 397 2400		FEDER	SPRING
0024.000	1	72008 631 2300		SCHALTER	SWITCH
0029.000	1	72008 631 6800		ZAHNRADPLATTE KPL	GEAR WHEEL BOARD CPL.
0035.000	1	72008 398 0900		HEBEL	LEVER
0036.000	1	72008 558 0600		FEDER	SPRING
0039.000	1	72008 631 6700		UMLENKROLLE	PIVOTING ROLLER
0044.000	1	72008 397 1500		TONWELLENLAGER	CAPSTAN BEARING
0049.000	1	72008 397 1600		SCHWUNGRADLAGER	FLYWHEEL BEARING
0054.000	1	72008 558 1200		ANTRIEBS-RIEMEN	DRIVE BELT
0057.000	1	72008 558 1300		SCHWUNGRAD KPL.	FLYWHEEL CPL
0058.000	1	72008 631 3200		SCHWUNGRAD KPL.	FLYWHEEL CPL
0069.000	1	72011 077 1000		FEDER KONTAKT	SPRING CONTACT
0072.000	1	72011 077 0900		WICKELTELLER KPL./SCHWARZ	CAP BLACK
0125.000	1	72011 077 0000		AUSWURFHEBEL KPL 4-TEILIG	EJECT LEVER CPL 4- LCA3-1
0126.000	1	72011 077 0100		ABBLOCKHEBEL	LEVER BLOCKING
0296.000	1	72011 077 0200		HALTER CASSETTE	HOLDER
0304.000	1	72011 077 0300		SCHIEBER	SLIDER
0313.000	1	72011 077 2100		WIEDERGABEKOPF KPL	HEAD PLAY CPL
0319.000	1	72011 077 0400		FEDER	SPRING
0320.000	1	72008 631 0200		MOTOR	MOTOR
0321.000	1	72011 077 0500		SCHALTER MUTE	SWITCH MUTE
0329.000	1	72011 077 1100		FEDER EJEKT	SPRING EJEKT
0330.000	1	72011 077 0600		SCHALTER TRACK	SWITCH TRACK
0342.000	1	72011 077 1200		BUEGELFEDER	BRACKET SPRING
0352.000	1	72011 077 1400		FEDER TASTEN	SPRING WIND BUTTON

Es gelten die Vorschriften und Sicherheitshinweise gemäß dem Service Manual "Sicherheit", Mat.-Nummer 72010 800 0000, sowie zusätzlich die eventuell abweichenden, landesspezifischen Vorschriften!

Btx *32700#

The regulations and safety instructions shall be valid as provided by the "Safety" Service Manual, part number 72010 800 0000, as well as the respective national deviations.

ÄNDERUNGEN VORBEHALTEN / SUBJECT TO ALTERATION

GRUNDIG

Ersatzteilliste
Spare Parts List

CAR AUDIO

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SEAT GP 99 HIGH
SEAT GP 99 HIGH + BC
SEAT RADIO HIGH
SEAT RADIO HIGH + BC

MATERIAL-NR. / PART NO.: 91837 481 5100 BESTELL-NR. / ORDER NO.: G.HK 66-00
MATERIAL-NR. / PART NO.: 91837 482 5100 BESTELL-NR. / ORDER NO.: G.HK 67-00
MATERIAL-NR. / PART NO.: 91837 483 5100 BESTELL-NR. / ORDER NO.: G.HK 36-00
MATERIAL-NR. / PART NO.: 91837 484 5100 BESTELL-NR. / ORDER NO.: G.HK 37-00

POS. NR. ABB. POS. NO. FIG.	MATERIAL-NR. PART NUMBER	ANZ. QTY.	BEZEICHNUNG (D)	DESCRIPTION (GB)
	91837 481 5100		SEAT GP 99 HIGH KEIN E-TEIL	SEAT GP 99 HIGH NO SPARE PART
	91837 482 5100		SEAT GP 99 HIGH + BC KEIN E-TEIL	SEAT GP 99 HIGH + BC NO SPARE PART
	91837 483 5100		SEAT RADIO HIGH KEIN E-TEIL	SEAT RADIO HIGH NO SPARE PART
	91837 484 5100		SEAT RADIO HIGH + BC KEIN E-TEIL	SEAT RADIO HIGH + BC NO SPARE PART
0015.000	18339 074 0000	2	TASTE LW-INNENTEIL	KEY TAPE DRIVE INNER PART
0025.000	19771 617 0100		ANSCHLUSSGEHAEUSE	CONNECTION TERMINAL
0027.000	18300 099 0100		ANTENNENBUCHSE KPL	ANTENNA SOCKET CPL
0029.000	18147 036 0000		ADAPTER-CLIPS	ADAPTER-CLIPS
0050.000	19723 046 0000	X	LAUFWERK LCA 3.3/2 KEIN E-TEIL	DRIVE MECHANISM LCA 3.3/2 NO SPARE PART
			X = SIEHE GESONDERTE E-LISTE	X = SEE SEPARATE PARTS LIST

POS. NR. POS. NO.	MATERIAL-NR. BEZEICHNUNG PART NUMBER DESCRIPTION
C 00608	86999 981 1800 TR.54 5,5/30PF
C 02008	84532 421 1100 ELKO 3300UF 16V 105C RM5
CD 00002	83093 017 7900 SMD-DIODE BA 779
CD 00003	83253 258 0500 SMD KAP-DIODE BB804 II TE
CD 00004	83253 258 0500 SMD KAP-DIODE BB804 II TE
CD 00005	83253 258 0500 SMD KAP-DIODE BB804 II TE
CD 00006	83092 100 1600 SMD DIODE BAS16 AV215 -G8
CD 00601	83093 130 9900 SMD DIODE BAV99 AV215 -G8
CD 00602	83253 415 6100 SMD KAP-DIODE KV1561 DB3-
CD 00603	83253 415 6100 SMD KAP-DIODE KV1561 DB3-
CD 00901	83092 100 1600 SMD DIODE BAS16 AV215 -G8 F.GP99HIGH+BC/RADIO HIHG+BC
CD 00902	83092 100 1600 SMD DIODE BAS16 AV215 -G8 F.GP99HIGH+BC/RADIO HIHG+BC
CD 00903	83093 130 9900 SMD DIODE BAV99 AV215 -G8
CD 00904	83092 100 1600 SMD DIODE BAS16 AV215 -G8 F.GP99HIGH+BC/RADIO HIHG+BC
CD 00906	83092 100 1600 SMD DIODE BAS16 AV215 -G8
CD 01301	83092 100 1600 SMD DIODE BAS16 AV215 -G8
CD 01601	83093 130 9900 SMD DIODE BAV99 AV215 -G8
CD 02001	83253 300 0300 SMD-DIODE ES 3 D GI/MURS
CD 02002	83253 280 1000 SMD DIODE BYG10D TEMIC/ F
CD 02003	83092 100 1600 SMD DIODE BAS16 AV215 -G8
CD 02201	83093 140 5600 SMD-DIODE BAW 56
CD 02202	83093 140 5600 SMD-DIODE BAW 56
CD 02203	83093 140 5600 SMD-DIODE BAW 56
CD 02204	83093 140 5600 SMD-DIODE BAW 56
CD 02206	83093 140 5600 SMD-DIODE BAW 56
CD 02207	83093 140 5600 SMD-DIODE BAW 56
CD 02401	83093 890 7000 SMD-Z DIODE Z 47 SB14125
CIC 00001	83051 540 6500 SMD IC U4065B-AFL G3 TEMI
CIC 00101	83058 415 9300 SMD IC TDA1593T/G13
CIC 00201	83058 473 4000 SMD IC TDA7340G
CIC 00501	83058 265 7900 SMD IC SAA6579T PHI A
CIC 00601	83058 415 7200 SMD IC TDA1572T/G13
CIC 00701	83058 474 2800 SMD IC TDA7427ADTR
CIC 00801	83059 580 1600 SMD IC 24LC16BT-I/SN AMT
CIC 00802	83057 522 8000 SMD IC M30612MAFP FUER GP 99 HIGH + BC
CIC 00802	83057 522 7900 SMD IC 30612 MAA-232FP FUER RADIO HIGH + BC
CIC 00803	83057 340 7700 SMD IC HEF4077BT
CIC 01101	83058 506 7500 SMD IC TEA0675T/G7
CL 00001	81405 160 5700 SMD DR 322519 2,2UH 10%
CL 00002	81405 160 5700 SMD DR 322519 2,2UH 10%
CL 00603	81405 264 8100 SMD DR 1206 5,6UH 20%
CR 00026	87750 090 8900 SMD-ESTR.C 4,7 KOHM LIN

Btx *32700#

ÄNDERUNGEN VORBEHALTEN / SUBJECT TO ALTERATION

POS. NR. POS. NO.	MATERIAL-NR. BEZEICHNUNG PART NUMBER DESCRIPTION
CT 00001	83011 810 9300 SMD TRANS BFR93AR PHI/TEM
CT 00002	83010 068 5800 SMD-TRANS.BC 858 C
CT 00103	83010 068 4800 SMD-TRANS.BC 848 C
CT 00104	83010 068 4800 SMD-TRANS.BC 848 C
CT 00201	83011 601 3500 SMD TRANS BCR135 SIE
CT 00601	83011 309 9200 SMD-TRANS.BF 992 A
CT 00602	83010 068 1800 SMD-TRANS.BC 818-40 S8
CT 00603	83010 068 4800 SMD-TRANS.BC 848 C
CT 00604	83010 068 4800 SMD-TRANS.BC 848 C
CT 00606	83011 305 4300 SMD TRANS BF543E7810 SIE/
CT 00607	83010 068 1800 SMD-TRANS.BC 818-40 S8
CT 00608	83010 068 1800 SMD-TRANS.BC 818-40 S8
CT 00609	83010 068 4800 SMD-TRANS.BC 848 C
CT 00701	83010 068 0800 SMD-TRANS.BC 808-40
CT 00702	83010 068 0800 SMD-TRANS.BC 808-40
CT 00703	83013 701 4300 SMD TRANS.DTA 143 ZK
CT 00704	83013 701 4300 SMD TRANS.DTA 143 ZK
CT 00801	83010 068 5800 SMD-TRANS.BC 858 C
CT 00802	83011 601 3500 SMD TRANS BCR135 SIE
CT 00803	83011 601 3500 SMD TRANS BCR135 SIE
CT 00804	83011 601 3500 SMD TRANS BCR135 SIE
CT 00805	83010 068 4800 SMD-TRANS.BC 848 C
CT 00809	83011 601 4800 SMD TRANS BCR148
CT 00901	83010 068 4800 SMD-TRANS.BC 848 C
CT 00902	83010 068 4800 SMD-TRANS.BC 848 C
CT 00903	83010 068 5800 SMD-TRANS.BC 858 C
CT 00904	83010 068 1800 SMD-TRANS.BC 818-40 S8
CT 00911	83010 068 4800 SMD-TRANS.BC 848 C
CT 00912	83010 068 5800 SMD-TRANS.BC 858 C
CT 00913	83010 068 5800 SMD-TRANS.BC 858 C
CT 00914	83010 068 1800 SMD-TRANS.BC 818-40 S8
CT 00916	83010 068 5800 SMD-TRANS.BC 858 C
CT 00917	83011 601 3500 SMD TRANS BCR135 SIE
CT 01101	83011 601 3500 SMD TRANS BCR135 SIE
CT 01102	83011 601 6600 SMD TRANS BCR166
CT 01103	83011 601 3500 SMD TRANS BCR135 SIE
CT 01201	83010 068 4800 SMD-TRANS.BC 848 C
CT 01203	83011 601 3500 SMD TRANS BCR135 SIE
CT 01204	83010 068 0800 SMD-TRANS.BC 808-40
CT 01206	83011 601 3500 SMD TRANS BCR135 SIE
CT 01207	83010 068 4800 SMD-TRANS.BC 848 C
CT 01208	83010 068 0800 SMD-TRANS.BC 808-40
CT 01209	83011 601 3500 SMD TRANS BCR135 SIE
CT 01211	83010 068 4800 SMD-TRANS.BC 848 C
CT 01212	83010 068 0800 SMD-TRANS.BC 808-40
CT 01301	83010 068 4800 SMD-TRANS.BC 848 C
CT 01302	83011 601 3500 SMD TRANS BCR135 SIE
CT 01304	83011 601 4800 SMD TRANS BCR148
CT 01601	83010 068 1800 SMD-TRANS.BC 818-40 S8
CT 01602	83010 068 4800 SMD-TRANS.BC 848 C
CT 01603	83011 601 4800 SMD TRANS BCR148
CT 01681	83010 048 4800 SMD-TRANS.BC 848 B
CT 01682	83010 068 5800 SMD-TRANS.BC 858 C
CT 02201	83028 040 1000 SMD-TRANS.IMH 10
CT 02202	83028 040 1000 SMD-TRANS.IMH 10
CT 02203	83028 040 0200 SMD-TRANS.IMH 2
CT 02204	83028 040 0200 SMD-TRANS.IMH 2
CT 02206	83010 068 4800 SMD-TRANS.BC 848 C
CT 02207	83010 068 0800 SMD-TRANS.BC 808-40
CT 02208	83010 068 1800 SMD-TRANS.BC 818-40 S8
CT 02209	83010 068 1800 SMD-TRANS.BC 818-40 S8
CT 02211	83010 068 1800 SMD-TRANS.BC 818-40 S8
CT 02212	83010 068 1800 SMD-TRANS.BC 818-40 S8
CT 02213	83010 068 4800 SMD-TRANS.BC 848 C
CT 02214	83010 068 5800 SMD-TRANS.BC 858 C
CT 02216	83010 068 5800 SMD-TRANS.BC 858 C

POS. NR. POS. NO.	MATERIAL-NR. BEZEICHNUNG PART NUMBER DESCRIPTION
CT 02217	83010 068 4800 SMD-TRANS.BC 848 C
CT 02404	83010 068 5800 SMD-TRANS.BC 858 C
CT 02406	83010 068 4800 SMD-TRANS.BC 848 C
CT 02407	83011 601 3500 SMD TRANS BCR135 SIE
CT 02408	83010 068 5800 SMD-TRANS.BC 858 C
CT 02409	83010 068 5800 SMD-TRANS.BC 858 C
CT 02411	83010 068 4800 SMD-TRANS.BC 848 C
CT 02412	83010 068 4800 SMD-TRANS.BC 848 C
CT 05806	83010 068 5800 SMD-TRANS.BC 858 C
CT 05807	83010 068 4800 SMD-TRANS.BC 848 C
F 00001	86022 221 2100 KERFIL #121 10,7MHZ
F 00002	86022 230 8000 KERFIL #80/A 10,7MHZ
F 00003	86022 221 9000 KERFIL #190 10,7MHZ
F 00102	86022 221 9000 KERFIL #190 10,7MHZ
F 00601	86028 100 5500 KERFIL #55 450KHZ RAD
IC 01601	83053 373 8500 IC TDA7385 SGS
IC 02001	83052 049 5300 IC L4953G SGS
L 00003	81405 339 0400 SPULE 7X7 #904 SIGN533904
L 00004	81405 302 7000 SPULE 9 #76 UKW 0,15UH
L 00005	81411 543 5000 SPULE #350 10,7MHZ
L 00006	81405 302 6900 SPULE 9 #75 UKW 0,1UH
L 00101	81405 352 5600 SPULE 7X7 #256 SIGN535256
L 00601	81405 331 6500 SPULE 7X7 #165 SIGN533165
L 00602	81405 331 1800 SPULE 7X7 118 SIGN 533118
L 00604	81405 331 3100 SPULE 7X7 #131 SIGN131 45
L 00606	81405 351 1600 SPULE 7X7 #116 SIGN116 45
L 00607	81405 351 0600 SPULE 7X7 #106 SIGN106 45
L 02001	81405 228 0100 DR 97UH 15% T68-26 31 11-1
L 02401	81405 254 3800 DR A AX-GA 1000UH 5%
Q 00201	86023 310 1000 KERRES #10/1 456KHZ
Q 00701	83822 121 0200 QUARZ #212 10,25MHZ
Q 00801	83822 007 9700 SCHWINGQUARZ 32,768 KHZ /
Q 00802	83822 090 8600 QUARZ #209 8,664MHZ
R 02002 ⚠	83151 001 6000 SI POLYSWITCH 1,6A 30V RU
SI 01701 ⚠	83157 031 0000 FLACH-SI. 10 A
T 01303	83032 873 6900 TRANS.BC 369 GEG.AMMO-PAC
T 02104	83032 873 6800 TRANS.BC 368 GEG.AMMO-PAC

Es gelten die Vorschriften und Sicherheitshinweise gemäß dem Service Manual "Sicherheit", Mat.-Nummer 72010 800 0000, sowie zusätzlich die eventuell abweichenden, landesspezifischen Vorschriften!

The regulations and safety instructions shall be valid as provided by the "Safety" Service Manual, part number 72010 800 0000, as well as the respective national deviations.

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ÄNDERUNGEN VORBEHALTEN / SUBJECT TO ALTERATION